PBS

SPECIAL EXCEPTION AMENDMENT PLAT

6455 STEPHENSON WAY

MASON DISTRICT - FAIRFAX COUNTY, VIRGINIA

NOTES

1. APPLICANT/OWNER:
   PUBLIC BROADCASTING SERVICE
   6455 STEPHENSON WAY
   ALEXANDRIA, VIRGINIA 22312

2. THE PROPERTY IS DESIGNATED AS FAIRFAX COUNTY TAX ASSESSMENT MAP PARCEL NUMBER 081-1-09-A, AND IS ZONED I-5.

3. THE BOUNDARY AND TOPOGRAPHIC INFORMATION IS BASED ON A COMBINATION OF FIELD RUN TOPOGRAPHY AND AVAILABLE RECORD INFORMATION. THE CONTOUR INTERVAL IS TWO FEET.

4. TO THE BEST OF OUR KNOWLEDGE AND BELIEF, ALL UTILITY EASEMENTS HAVING A WIDTH OF 25 FEET OR MORE ARE SHOWN ON THE PLAT.

5. THE TOTAL AREA OF THE PROPERTY IS 187,957 SQUARE FEET OR 4.31 ACRES.

6. THIS PROPERTY IS SERVED BY PUBLIC WATER AND SEWER.

7. BASED ON AVAILABLE MAPS AND RECORDS, THERE ARE NO KNOWN BURIAL SITES ON THIS PROPERTY.

8. THERE ARE NO TRAIL RECOMMENDATIONS FOR THIS SITE IN THE FAIRFAX COUNTY COMPREHENSIVE PLAN.

9. EXISTING SATELLITE OPERATIONS CENTER (SOC) BUILT IN 1977 WILL REMAIN. THE EXISTING OFFICE BUILDING, BUILT IN 2005 WILL REMAIN.

10. PER FAIRFAX COUNTY MAPS, THERE IS NO RPA ON THE SUBJECT PROPERTY.

11. PER FEMA FIRM MAP, 5155250150 D, DATED MARCH 5, 1990, THE SUBJECT PROPERTY IS IN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 500 YEAR FLOODPLAIN.

12. CONSERVATION EASEMENTS/WATER QUALITY MANAGEMENT AREAS, AS SHOWN ON SHEET 2, WERE RECORDED AS PART OF 17901-SP-001-2.

13. THERE IS NO NEW SIGNAGE PROPOSED WITH THIS APPLICATION.

14. ACCESS TO THE SITE IS VIA A PRIVATE DRIVE; THEREFORE, THE SPECIAL EXCEPTION PLAT SUBMISSION REQUIREMENT TO SHOW THE DELINEATION OF THE EXISTING CENTERLINE OF ALL STREETS ABUTTING THE PROPERTY, INCLUDING DIMENSIONS FROM THE EXISTING CENTERLINE TO THE EDGE OF THE PAVEMENT AND TO THE EDGE OF THE RIGHT-OF-WAY ARE NOT APPLICABLE.

15. PROPOSED BUILDING ADDITION TO INCLUDE ROOF TOP EQUIPMENT. ROOFTOP EQUIPMENT IS APPROXIMATELY 5.5' X 7.5' AND APPROXIMATELY 9' IN HEIGHT FROM TOP OF ROOF.

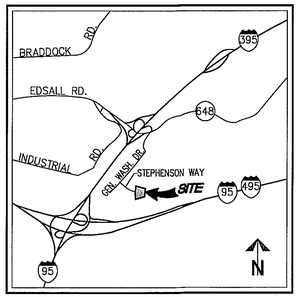
WAIVERS/MODIFICATONS REQUESTED

1. A MODIFICATION OF THE LOADING REQUIREMENT IS REQUESTED.

2. A REAFFIRMATION OF THE MODIFICATION OF THE TRANSITIONAL SCREENING YARD AND BARRIER REQUIREMENT ALONG THE SOUTHERN BOUNDARY (APPROVED UNDER SEA-85-L-022) IS REQUESTED.

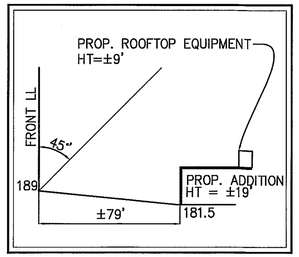
Application No. SEA85-L-022-03 Staff: DeMarche
APPROVED GDP/SP PLAN
SEE DEV CONDS DATED 1/21/10
date of BOS (BZA) approval 1/26/10
Sheet 1 of 14

VICINITY MAP



SCALE: 1"=2000'

BULK PLANE DETAIL
PROPOSED BUILDING ADDITION



SCALE: 1"=40'

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:

Special Permits (8-011 2J & 2L)	Special Exceptions (9-011 2J & 2L)
Cluster Subdivision (9-615 1G & 1N)	Commercial Revitalization Districts (9-622 2A (12)&(14))
Development Plans PRC District (16-302 2 & 4L)	PRC Plan (16-303 1E & 10)
FDP P Districts (except PRC) 916-502 1F & 1Q)	Amendments (18-202 10F & 10I)

1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100).

2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet 3,7,8

3. Provide:

Facility Name/ Type & No. (e.g. dry pond A, infil. Trench, underground vault, etc.)	On-Site area served (acres)	Off-Site are served (acres)	Drainage area (acres)	Footprint area (sf.)	Storage Volume (cf.)	If pond, dam height (ft.)
					Totals	

4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 8.

5. Maintenance accesses (road) to stormwater management facility(ies) are shown on Sheet 3,7.

6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet. 4

7. A "stormwater management narrative" which contains a description of how detention and best management practices requirements will be met is provided on Sheet 7.

8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet. 7,8

9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 7,8

10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets. 1,2

11. A submission waiver is requester for N/A.

12. Stormwater management is not required because N/A.

ZONING TABULATION

I-5, GENERAL INDUSTRIAL DISTRICT

	REQUIRED	PROVIDED
MIN. LOT AREA	20,000 SF	187,957 SF
MIN. LOT WIDTH	100 FT	±400 FT
MAX. BLDG. HT.	75 FT	±41 FT (EX. OFFICE BUILDING) ±17 FT (EX. 1-STORY BUILDING) ±19 FT (PROP. BUILDING ADDITION)
MIN. YARD REQUIREMENTS		
FRONT	45° ABP, 40 FT	±79 FT
SIDE	NONE REQUIRED	N/A
REAR	NONE REQUIRED	N/A
MAX. FAR	0.50	±0.18
OPEN SPACE	15%	±50%

PARKING TABULATION

PARKING PROVIDED: 93 SPACES
PARKING REQUIRED: 91 SPACES

EXISTING OFFICE
22,771 SF OF GFA @ 3.6 SPACES/1,000 SF OF GFA
= 82 SPACES
EXISTING SATELLITE OPERATIONS CENTER (SOC) PLUS PROPOSED ADDITION
8 EMPLOYEES @ 1 SP/EMPLOYEE (SEE NOTE BELOW)
1 COMPANY CAR (IN ACCORDANCE WITH 11-105-1 AND SEA APPROVAL)
= 9 SPACES

TOTAL: 91 SPACES

(NOTE: THE PROPOSED ADDITION TO SOC WILL NOT RESULT IN AN INCREASE IN THE NUMBER OF EMPLOYEES, THEREFORE NO ADDITIONAL PARKING IS REQUIRED.

LOADING PROVIDED: 1 SPACE (SEE NOTE BELOW)
LOADING REQUIRED: 2 SPACES
LOADING STANDARD C = 1 SPACE FOR FIRST 10,000 SF OF GFA PLUS 1 SPACE FOR EACH ADDITIONAL 20,000 SF
= 2 LOADING SPACES
(NOTE: A MODIFICATION OF THE LOADING REQUIREMENT IS REQUESTED.)

BUILDING AREA TABULATION

EXISTING OFFICE BUILDING:	±22,771 SF
EXISTING SOC BUILDING:	±8,332 SF
PROPOSED ADDITION TO SOC:	±2,900 SF
TOTAL BUILDING AREA:	**±34,003 SF**
SITE AREA:	187,957 SF
PROPOSED FAR:	**±0.18**

SHEET INDEX

RECEIVED
Department of Planning & Zoning
JAN 11 2010
Zoning Evaluation Division

WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1301 WWW.WLPINC.COM

DATE: 6/2/09; REV. 7/17/09; 10/7/09; REV. 10/26/09; 10/29/09; 1/11/10
SCALE: AS NOTED
DRAWN: MRW

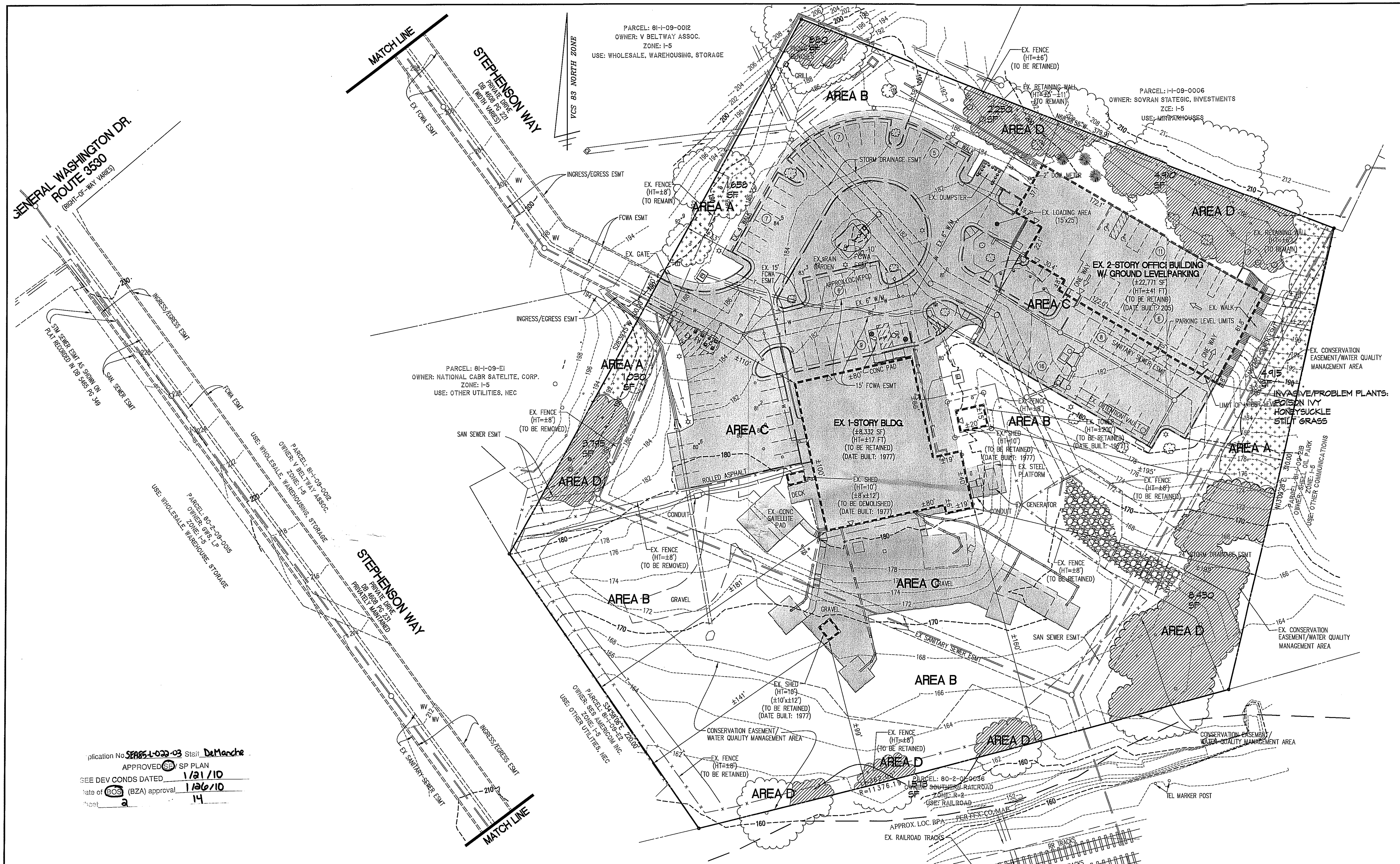
COMMONWEALTH OF VIRGINIA JEFFREY J. STUCHEL Lic. No.037315 PROFESSIONAL ENGINEER 1/11/10

REVISION APPROVED BY

NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

COVER SHEET

PBS
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA



Application No. SEA85-L-022-03 Staff DeMarche
APPROVED SE / SP PLAN
SEE DEV CONDS DATED 1/21/10
Date of BOS (BZA) approval 1/26/10
Sheet 2 of 14

EXISTING VEGETATION MAP INFORMATION

LEGEND		COVER TYPE	PRIMARY SPECIES	SUCCESSIONAL STAGE	CONDITION	ACREAGE	COMMENTS
A		EARLY SUCCESSIONAL FOREST COMMUNITY	SYCAMORE, GREEN ASH, RED MAPLE, BLACK LOCUST VIRGINIA PINE	EARLY SUCCESSIONAL TO SUBCLIMAX	FAIR TO GOOD	7,603 SF OR 0.17 AC	SOME INVASIVE VINES AND UNDERBRUSH
B		MAINTAINED GRASSLANDS	GRASS			82,627 SF OR 1.90 AC	
C		DEVELOPED LAND	BUILDINGS, DRIVE AISLES, PARKING			75,899 SF OR 1.74 AC	
D		UPLAND FOREST	OAK, HICKORY, YELLOW POPLAR, VIRGINIA PINE	EARLY SUCCESSIONAL TO SUBCLIMAX	FAIR TO GOOD	21,828 SF OR 0.50 AC	
				TOTAL SITE AREA		187,957 S.F. 4.31 AC	

File No. FF-11 Tax Map No. 81-1 Job No. 80-020 Cadd Dwg. File: Zoning2009\80020SEA Xref:

EXISTING CONDITIONS PLAN/EXISTING VEGETATION MAP

REVISION APPROVED BY

NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1301
WWW.WLPINC.COM

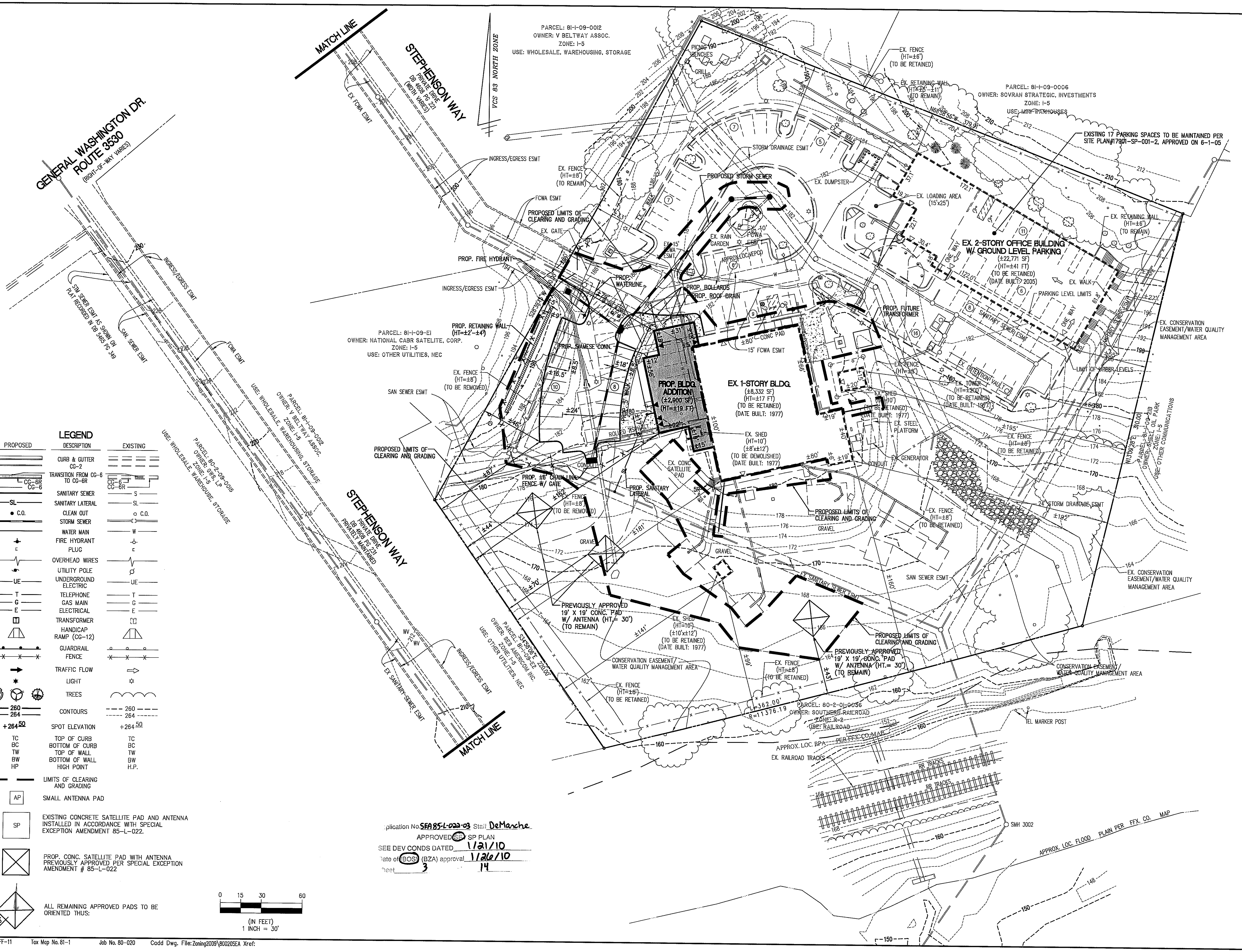
COMMONWEALTH OF VIRGINIA
JEFFREY J. STUCHEL
Lic. No.031215
1/11/10
PROFESSIONAL ENGINEER

SCALE: 1" = 30'
DATE: 6/2/09; REV. 7/17/09; 10/7/09
REV. 10/26/09; 10/29/09; 1/11/10
DRAWN: MRW

PBS

MASON DISTRICT

FAIRFAX COUNTY, VIRGINIA



LEGEND

PROPOSED	DESCRIPTION	EXISTING
	CURB & GUTTER CG-2	
CG-6R CG-6	TRANSITION FROM CG-6 TO CG-6R	CG-6 CG-6R
	SANITARY SEWER	S
SL	SANITARY LATERAL	SL
● C.O.	CLEAN OUT	○ C.O.
	STORM SEWER	
	WATER MAIN	W
	FIRE HYDRANT	
	PLUG	
	OVERHEAD WIRES	
	UTILITY POLE	
UE	UNDERGROUND ELECTRIC	UE
T	TELEPHONE	T
G	GAS MAIN	G
E	ELECTRICAL	E
	TRANSFORMER	
	HANDICAP RAMP (CG-12)	
	GUARDRAIL	
	FENCE	
	TRAFFIC FLOW	
	LIGHT	
	TREES	
260 264	CONTOURS	260 264
+264 50	SPOT ELEVATION	+264 50
TC	TOP OF CURB	TC
BC	BOTTOM OF CURB	BC
TW	TOP OF WALL	TW
BW	BOTTOM OF WALL	BW
HP	HIGH POINT	H.P.
	LIMITS OF CLEARING AND GRADING	
AP	SMALL ANTENNA PAD	
SP	EXISTING CONCRETE SATELLITE PAD AND ANTENNA INSTALLED IN ACCORDANCE WITH SPECIAL EXCEPTION AMENDMENT 85-L-022.	
	PROP. CONC. SATELLITE PAD WITH ANTENNA PREVIOUSLY APPROVED PER SPECIAL EXCEPTION AMENDMENT # 85-L-022	
220°	ALL REMAINING APPROVED PADS TO BE ORIENTED THUS:	

0 15 30 60
(IN FEET)
1 INCH = 30'

Application No. SEA 85-L-022-03 Staff DeMarche
APPROVED (SE) / SP PLAN
SEE DEV CONDS DATED 1/21/10
Date of (BOS) (BZA) approval 1/26/10
Sheet 3 of 14

SPECIAL EXCEPTION AMENDMENT PLAT

PBS

MASON DISTRICT

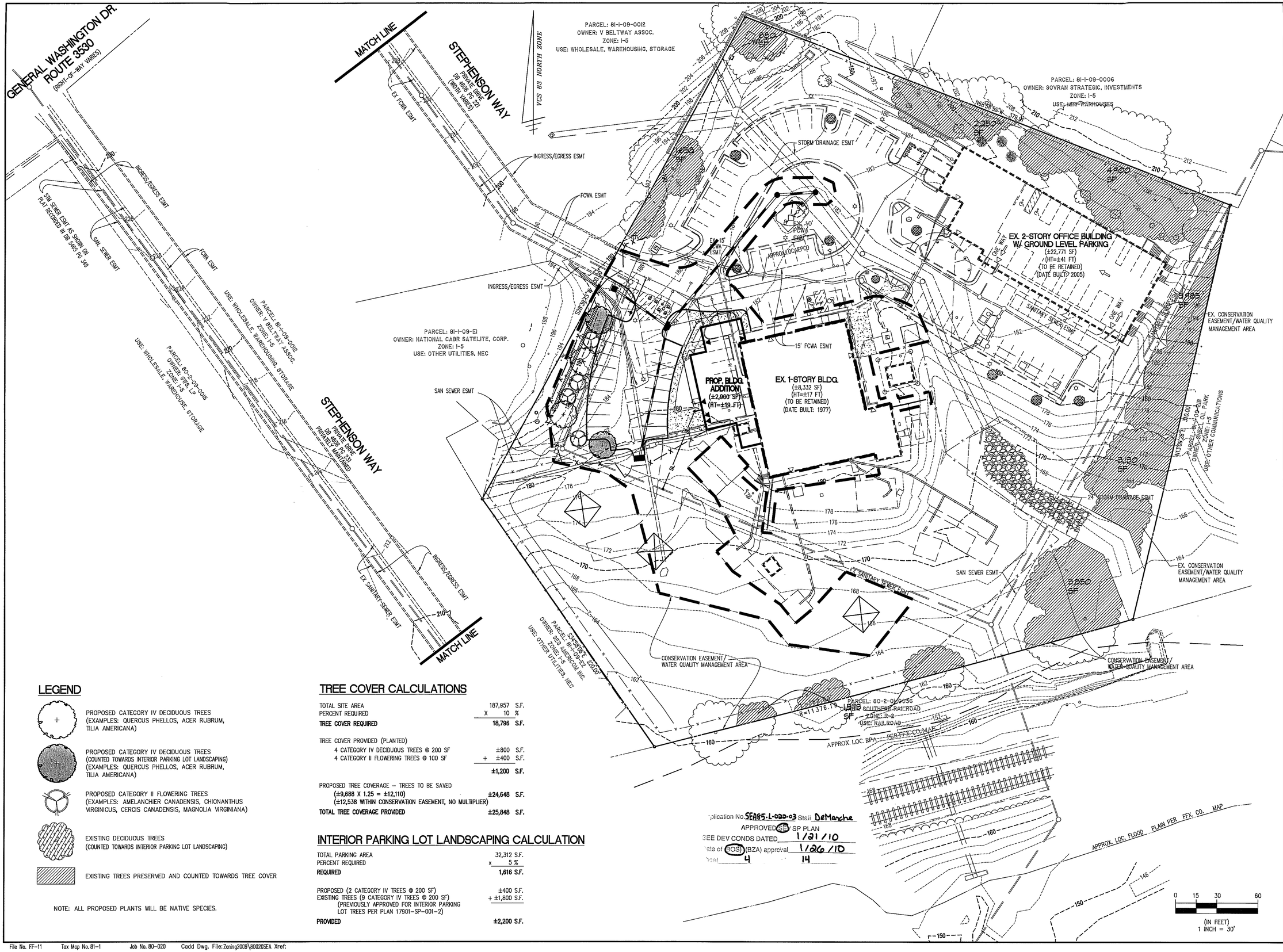
REVISION APPROVED BY

NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046

JEFFREY J. STUCHEL
Lic. No.031215

File No. FF-11 Tax Map No. 81-1 Job No. 80-020 Cadd Dwg. File: Zoning2009\80020SEA Xref:



LEGEND

- PROPOSED CATEGORY IV DECIDUOUS TREES (EXAMPLES: QUERCUS PHELLOS, ACER RUBRUM, TILIA AMERICANA)
- PROPOSED CATEGORY IV DECIDUOUS TREES (COUNTED TOWARDS INTERIOR PARKING LOT LANDSCAPING) (EXAMPLES: QUERCUS PHELLOS, ACER RUBRUM, TILIA AMERICANA)
- PROPOSED CATEGORY II FLOWERING TREES (EXAMPLES: AMELANCHIER CANADENSIS, CHIONANTHUS VIRGINICUS, CERCIS CANADENSIS, MAGNOLIA VIRGINIANA)
- EXISTING DECIDUOUS TREES (COUNTED TOWARDS INTERIOR PARKING LOT LANDSCAPING)
- EXISTING TREES PRESERVED AND COUNTED TOWARDS TREE COVER

NOTE: ALL PROPOSED PLANTS WILL BE NATIVE SPECIES.

TREE COVER CALCULATIONS

TOTAL SITE AREA	187,957	S.F.
PERCENT REQUIRED	X 10	%
TREE COVER REQUIRED	**18,796**	**S.F.**
TREE COVER PROVIDED (PLANTED)		
4 CATEGORY IV DECIDUOUS TREES @ 200 SF	±800	S.F.
4 CATEGORY II FLOWERING TREES @ 100 SF	+ ±400	S.F.
	±1,200	**S.F.**
PROPOSED TREE COVERAGE – TREES TO BE SAVED		
(±9,688 X 1.25 = ±12,110)	**±24,648**	**S.F.**
(±12,538 WITHIN CONSERVATION EASEMENT, NO MULTIPLIER)		
TOTAL TREE COVERAGE PROVIDED	**±25,848**	**S.F.**

INTERIOR PARKING LOT LANDSCAPING CALCULATION

TOTAL PARKING AREA	32,312	S.F.
PERCENT REQUIRED	x 5	%
REQUIRED	**1,616**	**S.F.**
PROPOSED (2 CATEGORY IV TREES @ 200 SF)	±400	S.F.
EXISTING TREES (9 CATEGORY IV TREES @ 200 SF) (PREVIOUSLY APPROVED FOR INTERIOR PARKING LOT TREES PER PLAN 17901-SP-001-2)	+ ±1,800	S.F.
PROVIDED	**±2,200**	**S.F.**

WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1801 WWW.WLPINC.COM

DATE: 6/2/09; REV. 7/17/09, 10/7/09
REV. 10/26/09; 10/29/09; 1/11/10
DRAWN: MRW
SCALE: 1" = 30'

COMMONWEALTH OF VIRGINIA
JEFFREY J. STUCHEL
Lic. No.031215
PROFESSIONAL ENGINEER
1/11/10

REVISION APPROVED BY

NO.	DESCRIPTION	DATE	REV. BY

CONCEPTUAL LANDSCAPE PLAN

PBS

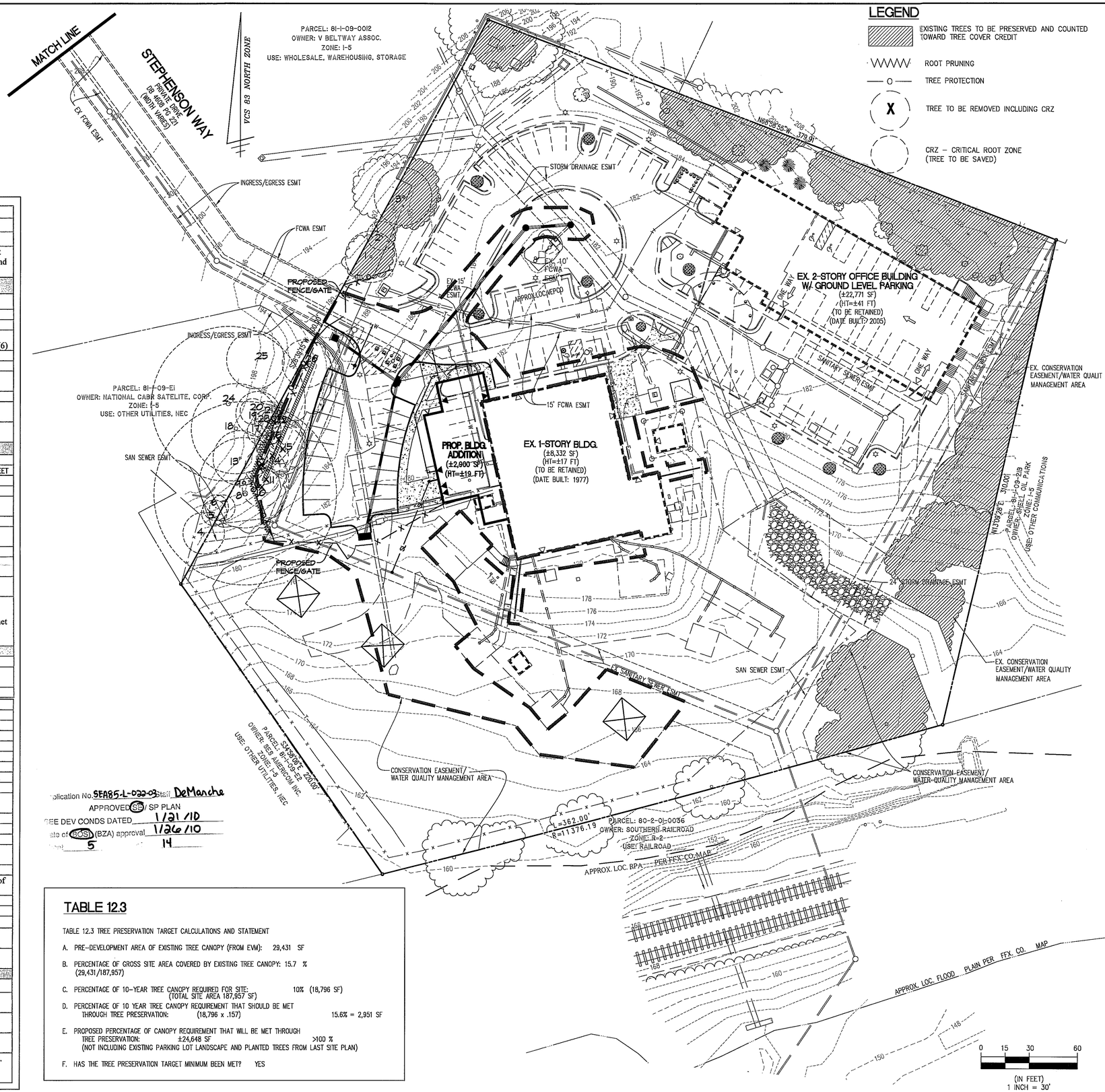
MASON DISTRICT

FAIRFAX COUNTY, VIRGINIA

File No. FF-11 Tax Map No. 81-1 Job No. 80-020 Cadd Dwg. File: Zoning2009\80020SEA Xref:

Table 12.12 10-year Tree Canopy Calculation Worksheet

Step		Totals	Reference
A. Tree Preservation Target and Statement			
A 1	Place the Tree Preservation Target calculations and statement here preceding the 10-year tree canopy calculations	SEE TABLE 12.3 SHEET 5	see § 12-0507.2 for list of required elements and worksheet
B. Tree Canopy Requirement			
B1	Identify gross site area =	187,957	§ 12-0510.1A
B2	Subtract area dedicated to parks, road frontage, and	–0–	§ 12-0510.1B
B3	Subtract area of exemptions =	–0–	§ 12-0510.1C(1) through § 12-0510.1C(6)
B4	Adjusted gross site area (B1 – B2) =	187,957	
B5	Identify site's zoning and/or use		
B6	Percentage of 10-year tree canopy required =	10%	§ 12-509.1 and Table 12.4
B7	Area of 10-year tree canopy required (B4 x B5) =	18,796	
B8	Modification of 10-year Tree Canopy Requirements requested?	NO	Yes or No
B9	If B8 is yes, then list plan sheet where modification request is located		Sheet number
C. Tree Preservation			
C1	Tree Preservation Target Area =	±2,951	SEE TABLE 12.3, THIS SHEET
C2	Total canopy area meeting standards of § 12-0200 =	±9,688	
C3	C2 x 1.25 =	±12,110	§ 12-0509.3B
C4	Total canopy area provided by unique or valuable forest or woodland communities =	–0–	
C5	C4 x 1.5 =	–0–	§ 12-0509.3B(1)
C6	Total of canopy area provided by "Heritage," "Memorial," "Specimen," or "Street" trees =	–0–	
C7	C6 x 1.5 to 3.0 =	–0–	§ 12-0509.3B(2)
C8	Canopy area of trees within Resource Protection Areas (CONSERVATION EASEMENT) and 100-year floodplains =	12,538	
C9	C8 x 1.0 =	12,538	§ 12-0509.3C(1)
C10	Total of C3, C5, C7 and C9 =	±24,648	If area of C10 is less than B7 remainder of requirement must be met through tree planting - go to D
D. Tree Planting			
D1	Area of canopy to be met through tree planting (B7-C10) =	0	
D2	Area of canopy Planted for air quality benefits =		
D3	x 1.5 =		§ 12-0509.4B(1)
D4	Area of canopy planted for energy conservation =		
D5	x 1.5 =		§ 12-0509.4B(2)
D6	Area of canopy planted for water quality benefits =		
D7	x 1.25 =		§ 12-0509.4B(3
D8	Area of canopy planted for wildlife benefits =		
D9	x 1.5 =		§ 12-0509.4B(4)
D10	Area of canopy provide by native trees =		
D11	x 1.5 =		§ 12-0509.4B(5)
D12	Area of canopy provided by improved cultivars and varieties =		
D13	X1.25		§ 12-0509.4B(6)
D14	Area of canopy provided through tree seedlings =		§ 12-0509.4D(1)
	x1.0		
D15	Area of canopy provided through native shrubs or woody seed mix =		§ 12-0509.4D(1)(a)
	x1.0		§ 12-0509.4D(1)(a)
D16	Percentage of D14 represented by D15=		Must not exceed 33% of D14
D17	Total of canopy area provided through tree planting =	±1,200	(NOT REQUIRED)
D18	Is an offsite planting relief requested?	NO	Yes or No
D19	Tree Bank or Tree Fund?	NONE	§ 12-0511
D20	Canopy area requested to be provided through offsite banking or tree fund	NONE	
D21	Amount to be deposited into the Tree Preservation and Planting Fund	NONE	
E. Total of 10-year Tree Canopy Provided			
E1	Total of canopy area provided through tree preservation (C10) =	±24,648	
E2	Total of canopy area provided through tree planting (D17) =	±1,200	
E3	Total of canopy area provided through offsite mechanism (D19) =	0	
E4	Total of 10-year Tree Canopy Provided =	±25,848	Total of E1 through E3. Area should meet or exceed area in B6



LEGEND

- EXISTING TREES TO BE PRESERVED AND COUNTED TOWARD TREE COVER CREDIT
- ROOT PRUNING
- TREE PROTECTION
- X — TREE TO BE REMOVED INCLUDING CRZ
- CRZ – CRITICAL ROOT ZONE (TREE TO BE SAVED)

Application No. SEA85-L-022-03 Staff DeMarche
APPROVED BOS / SP PLAN
TREE DEV CONDS DATED 1/21/10
Date of BOS (BZA) approval 1/26/10
Sheet 5 14

TABLE 12.3

TABLE 12.3 TREE PRESERVATION TARGET CALCULATIONS AND STATEMENT

A. PRE-DEVELOPMENT AREA OF EXISTING TREE CANOPY (FROM EVM): 29,431 SF

B. PERCENTAGE OF GROSS SITE AREA COVERED BY EXISTING TREE CANOPY: 15.7 %
(29,431/187,957)

C. PERCENTAGE OF 10-YEAR TREE CANOPY REQUIRED FOR SITE: 10% (18,796 SF)
(TOTAL SITE AREA 187,957 SF)

D. PERCENTAGE OF 10 YEAR TREE CANOPY REQUIREMENT THAT SHOULD BE MET THROUGH TREE PRESERVATION: (18,796 x .157) 15.6% = 2,951 SF

E. PROPOSED PERCENTAGE OF CANOPY REQUIREMENT THAT WILL BE MET THROUGH TREE PRESERVATION: ±24,648 SF >100 %
(NOT INCLUDING EXISTING PARKING LOT LANDSCAPE AND PLANTED TREES FROM LAST SITE PLAN)

F. HAS THE TREE PRESERVATION TARGET MINIMUM BEEN MET? YES

WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046 WWW.WLPINC.COM
(703) 532-6163 FAX (703) 533-3301

DATE: 6/2/09; REV. 7/17/09; 10/7/09; REV. 10/26/09; 10/29/09; 1/11/10 | DRAWN: MRW | SCALE: 1" = 30'

COMMONWEALTH OF VIRGINIA JEFFREY L. STUCHEL Lic. No.031215 PROFESSIONAL ENGINEER 1/11/10

NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

REVISION APPROVED BY

TREE INVENTORY AND PRESERVATION PLAN

PBS

MASON DISTRICT

FAIRFAX COUNTY, VIRGINIA

PBS Tree Inventory

Tree Survey Information Completed by Walter L. Phillips, Arborist: Kathy von Bredow #MA -4729A

Tree #	Botanical Name	Common Name	Size (DBH)	Critical Root Zone (CRZ)	Species Rating	Condition %	Removal	Activities: Tree Protection Fence	Mulch	Fertilize	Crown Clean	Root Prune	Remove Vines	Water During Construction	Hand Removal
1	Juniperus virginiana	Eastern redcedar	16"	16'	85%	84%		X							
2	Juniperus virginiana	Eastern redcedar	9"	9'	85%	81%		X							
3	Carya glabra	Pignut hickory	18"	18'	85%	63%		X					X		
4	Robinia pseudoacacia	Black locust	13"	13'	65%	50%		X	X						
5	Robinia pseudoacacia	Black locust	7"	8'	65%	44%		X	X						
6	Robinia pseudoacacia	Black locust	8"	8'	65%	50%		X	X						
7	Robinia pseudoacacia	Black locust	8"	8'	65%	56%		X	X						
8	Quercus rubra	Northern red oak	38"	57'	85%	81%		X	X			X		X	
9	Quercus rubra	Northern red oak	28"	28'	85%	81%		X	X			X		X	
10	Quercus alba	White oak	12"	12'	85%	81%	X								X
11	Quercus rubra	Northern red oak	6"	8'	85%	81%	X								X
12	Quercus rubra	Northern red oak	11"	11'	85%	47%	X								X
13	Quercus rubra	Northern red oak	17"	17'	85%	81%		X	X	X	X			X	
14	Liriodendron tulipifera	Yellow-poplar	10"	10'	80%	16%	X								X
15	Quercus rubra	Northern red oak	16"	16'	85%	72%	X								X
16	Quercus alba	White oak	16"	16'	85%	59%	X								X
17	Nyssa sylvatica	Blackgum	8"	8'	85%	72%		X	X	X		X		X	
18	Quercus rubra	Northern red oak	28"	28'	85%	72%		X	X	X		X		X	
19	Quercus alba	White oak	14"	14'	85%	69%		X	X	X		X		X	
20	Carya glabra	Pignut hickory	8"	8'	85%	81%		X	X	X		X		X	
21	Nyssa sylvatica	Blackgum	6"	8'	85%	78%		X	X	X		X		X	
22	Dead	Dead	8"	0'	0%	0%	X								X
23	Prunus serotina	Black cherry	6"	8'	65%	56%		X	X					X	
24	Quercus rubra	Northern red oak	32"	48'	85%	72%		X	X	X					
25	Prunus serotina	Black cherry	18"	18'	65%	72%		X	X						
26	Juniperus virginiana	Eastern redcedar	15"	15'	85%	84%	X								

DBH = Diameter at Breast Height (measured 4.5 feet above ground)
CRZ = Critical Root Zone = 1 foot radius per inch of tree diameter, trees over 30" DBH= 1.5 foot radius per inch of tree diameter
CRZ values for trees with multiple stems were calculated using the diameter of a tree with the basal area equivalent to the sum of the basal areas for all stems.

Crown Clean Pruning - Remove all dead, dying, and diseased limbs 2" in diameter and larger, measured at the point of attachment.
Mulching - Chips or shredded hardwood mulch shall be placed in tree preservation area to a maximum depth of 4" along the limits of clearing and grading to a maximum depth of 10' into the preserved areas.
Mulch within protected areas without the use of motorized equipment (ie, use wheelbarrows) and will be distributed manually.
Tree Survey Information Completed by Walter Phillips, Inc - Arborist Kathy von Bredow - ISA # MA-4729A 25 August 2009

NOTE:
TREES # 8 AND 9 WHICH ARE LARGE OAKS WILL BE MONITORED DURING THE COURSE OF CONSTRUCTION. NO TREE COVER CREDIT HAS BEEN TAKEN FOR THESE TREES.

INVASIVE PLANT NARRATIVE:

INVASIVE PLANT MATERIAL WILL BE REMOVED UNDER SUPERVISION OF THE PROJECT ARBORIST. ALL INVASIVE PLANTS ARE TO BE REMOVED BY HAND TO MINIMIZE SITE DISTURBANCE WITHIN LIMITS OF TREE SAVE AREAS THAT ARE COUNTED TOWARD TREE COVER CREDIT.

INVASIVE PLANTS IDENTIFIED TO BE REMOVED:

1. HONEYSUCKLE
Remove by hand to minimize site disturbance. In the growing season, an application of an environmentally sensitive approved herbicide may be applied by a Virginia Certified Applicator. This treatment must be repeated 3–6 times a year for 2–4 years until the energy resources of the plant have been depleted. For this project, application and monitoring will be for two complete growing seasons.

2. WILD GRAPE VINE/POISON IVY
Remove by hand to minimize site disturbance. Use a systemic herbicide during the growing season(like glyphosate) for (Roundup Classic) for upland areas and (Rodea) for wetland applications applied by a Virginia Certified Applicator. This treatment must be repeated 3–6 times a year for 2–4 years until the energy resources of the plant have been depleted. For this project, application and monitoring will be for two complete growing seasons.

3. JAPANESE STILT GRASS
Selective areas of monitoring. Based on article by NCSU
http://www.bae.ncsu.edu/programs/[illegible]sion/wqg/northcreek_images/microstegium.pdf
Not desirable to control within flood[illegible]/at–risk habitats because it will also destroy native species.

TREE PRESERVATION NARRATIVE:

THIS INFORMATION IS RELATIVE TO THE DEVELOPMENT KNOWN AS THE PBS PROPERTY AT GENERAL WASHINGTON DRIVE, FAIRFAX COUNTY, VA. IT DESCRIBES THE CURRENT CONDITION AND SUITABILITY FOR PRESERVATION FOR THE GROUPS OF TREES LOCATED ON THE SUBJECT PROPERTY, AS WELL AS PROPOSED GENERAL MEANS FOR PRESERVATION. THE EXISTING TREE COVER IS A TYPICAL MIX OF HARDWOODS DOMINATED BY MATURE OAKS, HICKORY, MAPLES AND TULIP POPLARS WITH A MIX OF SECONDARY GROWTH SUCH AS CEDARS AND CHERRY AND UNDERSTORY. THE EXISTING TREES ARE IN GENERALLY GOOD TO FAIR CONDITION WITH SOME INVASIVE PLANT MATERIAL, ESPECIALLY IN THE FLOODPLAIN AREAS. (SEE INVASIVE NARRATIVE) ALL ONSITE TREES WITHIN THE LIMITS OF CLEARING AND GRADING TO BE REMOVED.

THE CONSTRUCTION LIMITS SHOWN INDCATE A RANGE OF CUT WITHIN THE CRZ OF SEVERAL LARGE TREES TO BE PRESERVED DUE TO THE INSTALLATION OF A WALL TO PROVIDE ADDITIONAL PARKING. ANY TREE THE CRZ OF WHICH IS AFFECTED BY THE CONSTRUCTION PROCESS SHOULD BE FERTILIZED AND WATERED THOROUGHLY AS THE LIMITS OF DISTURBANCE ARE STABILIZED AND ALL CONSTRUCTION MATERIALS AND EQUIPMENT ARE REMOVED. A 3–4" LAYER OF MUCH SHOULD BE APPLIED USING NON–MOTORIZED EQUIPMENT (BY HAND USING WHEELBARROWS) TO TREES WITHIN 10 FEET OF THE LIMITS OF DISTURBANCE. NO MOTORIZED EQUIPMENT WILL BE USED TO DISTRIBUTE MULCH WITHIN TREE PRESERVATION AREAS. MANUAL METHODS WILL INCLUDE USING WHEELBARROWS AND MANUAL LABOR TO DISTRIBUTE MULCH WITHIN THESE AREAS.

NO TREES OUTSIDE THE LIMITS OF CLEARING AND GRADING ARE TO BE REMOVED UNLESS INDICATED ON PLAN. TREES WITH MORE THAN 25% OF THEIR CRZ IMPACTED BY CONSTRUCTION SHALL BE WATERED REGULARLY DURING CONSTRUCTION ACTIVITY.

DURING ANY CLEARING OR TREE/VEGETATION REMOVAL IN THE AREAS 10' ADJACENT TO OR IN THE TREE PRESERVATION AREAS, THE PROJECT ARBORIST SHALL BE PRESENT TO MONITOR THE PROCESS AND ENSURE THAT THE ACTIVITIES ARE CONDUCTED AS PROFFERED AND AS APPROVED BY URBAN FOREST MANAGEMENT.

THE INSTALLATION OF TREE PROTECTION FENCING, INCLUDING SUPER SILT FENCE IF IT IS TO BE USED AS TREE PROTECTION FENCE, SHALL BE INSTALLED UNDER THE DIRECT SUPERVISION OF THE PROJECT ARBORIST, WHO SHALL BE A CERTIFIED ARBORIST, AND ACCOMPLISHED IN A MANNER THAT DOES NOT HARM EXISTING VEGETATION THAT IS TO BE PRESERVED. AFTER ALL CONSTRUCTION ACTIVITY IS COMPLETE, THE TREE PROTECTION FENCE/SUPER SILT FENCE SHALL BE CAREFULLY REMOVED AND THE MULCH LAID DOWN FOR THE TREE PROTECTION FENCE SPREAD OUT TO A THICKNESS OF APPROX. 2", TAKING CARE TO MINIMIZE DAMAGE TO THE EXISTING NATIVE ORGANIC LAYER.

TREES IN PRESERVATION AREAS INDICATED ON PLAN TO BE REMOVED SHALL BE REMOVED USING HAND OPERATED EQUIPMENT (SAW CUT) UNDER THE DIRECTION OF THE PROJECT ARBORIST. TREE AND SHRUB UNDERSTORY RETENTION MUST BE MAXIMIZED. THESE METHODS SHALL INCLUDE THE FOLLOWING:
1. ALL HAND–OPERATED POWER TOOLS USED WITHIN TREE SAVE AREAS MUST BE IN GOOD OPERATING CONDITION, (POWER WASHED), FREE OF LEAKS OR EXCESS OIL AND GREASE.
2. NO EQUIPMENT REFUELING OR SERVICING SHOULD BE UNDERTAKEN WITHIN 100 FEET OF ANY WATERCOURSE OR SURFACE WATER DRAINAGE.
3. NO DEBRIS FROM TREE REMOVAL OUTSIDE PROTECTED AREAS SHALL ENCROACH WITHIN THE TREE PRESERVATION AREAS.
4. A SPILL CONTAINMENT KIT MUST BE KEPT READILY ACCESSIBLE ONSITE IN THE EVENT OF A RELEASE OF A DELETERIOUS SUBSTANCE TO THE ENVIRONMENT.
5, TREES MUST BE FELLED IN SECTIONS/AND/OR/CRANE ASSITED REMOVALS ARE TO BE CONSIDERED FIRST. NO DEBRIS IS TO BE FELLED FROM TREES OUTSIDE THE LOC INTO TREE PRESERVATION AREAS.
6. ALL NON–TARGET TREES AND VEGETATION TO BE RETAINED.
7. IN THE EVENT THAT THERE IS A NECESSARY TRESPASS INTO ANY TREE PRESERVATION AREA, PROTECTION FOR THE NATIVE ORGANIC LAYER SHALL BE PROVIDED. FOR FOOT TRAFFIC, A 3–4" LAYER OF MULCH SHALL BE INSTALLED PRIOR TO THE TRESPASS.

TREES WITHIN 10' OF THE LOC WILL BE REMOVED USING HAND–OPERATED EQUPMENT (SAW CUT) TO LIMIT DISTURBANCE TO THE ADJACENT SITE AREA. THEY SHALL NOT BE RIPPED OUT WHOLE WITH EQUIPMENT. STUMPS MAY BE GROUND OUTSIDE THE LOC. NO STUMP WITHIN THE TREE PRESERVATION AREAS MAY BE GROUND OUT.

A WEEKLY MONITORING REPORT WILL BE SENT TO UFMD BY THE PROJECT ARBORIST DURING THE INSTALLATION OF THE TREE PROTECTION FENCING AND INSTALLATION OF E&S CONTROL MEASURES. THE PROJECT ARBORIST WILL BE ON SITE DURING THE INSTALLATION OF THE TREE PROTECTION FENCING. DURING CONSTRUCTION, A MONTLY STATUS REPORT WILL BE SENT TO THE UFMD BY THE PROJECT ARBORIST.

NOTE:
All pruning shall be done in accordance with the latest edition American National Standards Institute (ANSI) A300 pruning standards. Pruning shall be done by personnel who, through training and on-the-job experience, understand the techniques and hazards of tree care work and understand the safety requirements outlined in the latest edition of the ANSI Z133.1 standards. Refer to the ANSI standards listed above, and Plate 9-12(9M-12) in the Fairfax County PFM for a graphical depiction of proper pruning technique. 12-0706.4A(1)

NO TREE SHALL BE TOPPED UNDER ANY CIRCUMSTANCE. NO PRUNING CUTS SHALL BE PAINED, COATED OR OTHERWISE TREATED UNLESS SPECIFICALLY REQUIRED BY THE ATTENDING ARBORIST AND JURISDICTIONAL ARBORIST IN THE FIELD.

plication No SEA85-L-022-03 Staff DeMarche
APPROVED SE / SP PLAN
SEE DEV CONDS DATED 1/21/10
ate of (BOS) (BZA) approval 1/26/10
heet 6 14

WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1301 WWW.WLPINC.COM

DATE: 6/2/09; REV. 7/17/09; 10/7/09
REV. 10/26/09; 10/29/09; 1/11/10
DRAWN: MRW
SCALE: 1" = 30'

COMMONWEALTH OF VIRGINIA
JEFFREY J. STUCHEL
Lic. No.031215
1/11/10
PROFESSIONAL ENGINEER

REVISION APPROVED BY

NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

TREE INVENTORY AND PRESERVATION PLAN

PBS

MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA

OVERALL SITE DRAINAGE SUMMARY

I. PRE-DEVELOPMENT:

A. TOTAL AREA = 4.31 AC.

CONTRIBUTING AREAS:

1.47 AC. @ 0.90 (IMPERVIOUS AREA ON-SITE)
0.28 AC. @ 0.60 (GRAVEL AREA ON-SITE)
2.56 AC. @ 0.30 (GREEN AREA ON-SITE)
4.31 AC.

B. WEIGHTED "C":

$$\frac{(1.47)(0.90) + (0.28)(0.60) + (2.56)(0.30)}{4.31} = 0.52$$

C. TIME OF CONCENTRATION = 5 MIN.

D. RUNOFF: Q2 = (0.52) (5.45) (4.31) = 12.21 CFS
Q10 = (0.52) (7.27) (4.31) = 16.29 CFS

II. POST-DEVELOPMENT:

A. CONTRIBUTING AREAS:

1.54 AC. @ 0.90 (IMPERVIOUS AREA ONSITE)
0.27 AC. @ 0.60 (GRAVEL AREA ONSITE)
2.50 AC. @ 0.30 (GREEN AREA ONSITE)
4.31 AC.

B. WEIGHTED "C":

$$\frac{(1.54)(0.90) + (0.27)(0.60) + (2.52)(0.30)}{4.31} = 0.53$$

C. RUNOFF: Q2 = (0.53) (5.45) (4.31) = 12.45 CFS
Q10 = (0.53) (7.27) (4.31) = 16.61 CFS

III. POST-DEVELOPMENT (ONSITE UNDETAINED):

A. CONTRIBUTING AREAS:
0.74 AC. @ 0.90 (IMPERVIOUS AREA ONSITE)
0.27 AC. @ 0.60 (GRAVEL AREA ONSITE)
2.34 AC. @ 0.30 (GREEN AREA ONSITE)
3.35 AC.

B. WEIGHTED "C":

$$\frac{(0.74)(0.90) + (0.27)(0.60) + (2.34)(0.30)}{3.35} = 0.46$$

C. RUNOFF: Q2 = (0.46)(5.45)(3.35) = 8.40 CFS
Q10 = (0.46)(7.27)(3.35) = 11.20 CFS

IV. POST-DEVELOPMENT (ONSITE DETAINED):

A. CONTRIBUTING AREAS:
0.80 AC. @ 0.90 (IMPERVIOUS AREA ONSITE)
0.16 AC. @ 0.30 (GREEN AREA ONSITE)
0.96 AC.

B. WEIGHTED "C":

$$\frac{(0.80)(0.90)+(0.16)(0.30)}{0.96} = 0.80$$

C. RUNOFF: Q2 = (0.80)(5.45)(0.96) = 4.19 CFS
Q10 = (0.80)(7.27)(0.96) = 5.58 CFS

V. ALLOWABLE RELEASE FROM DETENTION:

QALLOW. = QPRE – QPOST UNDETAINED
Q2 = 12.21 – 8.40 = 3.81 CFS
Q10 = 16.29 – 11.20 = 5.09 CFS

VI. COMPLIANCE:

Q2 RELEASE FROM DETENTION = 1.82 CFS
Q10 RELEASE FROM DETENTION = 2.61 CFS
RELEASE RATES FROM DETENTION VAULT
1.82 CFS < Q2 MAX REL. (3.81 CFS); O.K.
2.61 CFS < Q10 MAX REL. (5.09 CFS); O.K.

SWM NARRATIVE:

THE PROPOSED DEVELOPMENT RESULTS IN A TOTAL INCREASE IN IMPERVIOUS AREA OF 0.07 AC THEREFORE STORM WATER DETENTION IS REQUIRED. THE REQUIRED DETENTION WILL BE PROVIDED BY AN EXISTING ONSITE UNDERGROUND STRUCTURE. 2.75 AC OF THE SITE SHEET FLOWS UNDETAINED TO THE SOUTH OF THE SITE THROUGH A WATER QUALITY MANAGEMENT AREA. 0.38 AC OF THE SITE FLOWS UNDETAINED THROUGH A BIORETENTION FILTER AND THEN THROUGH STORM SEWER UNTIL IT OUTFALLS TO A RIP-RAP LINED CHANNEL IN THE SOUTHWESTERN PART OF THE SITE. AN ADDITIONAL 0.22 AC OF THE SITE FLOWS UNDETAINED THROUGH THE SAME STORM SEWER AND OUTFALLS TO THE SAME RIP-RAP LINED CHANNEL AS THE BIORETENTION FILTER. 0.96 AC OF THE SITE IS DETAINED IN THE EXISTING UNDERGROUND STRUCTURE. THE ALLOWABLE RELEASES FOR THIS STRUCTURE ARE EQUAL TO THE PRE-DEVELOPMENT FLOWS – THE UNDETAINED FLOWS. THE 2-YEAR ALLOWABLE RELEASE IS 3.81 CFS AND THE 10-YR ALLOWABLE RELEASE IS 5.09 CFS. THE FLOWS FROM THE SITE WERE ROUTED THROUGH THE EXISTING STRUCTURE USING AS-BUILT INFORMATION FOR THE SIZE AND INVERTS. THE ACTUAL 2 AND 10 YEAR RELEASES ARE 1.82 CFS AND 2.61 CFS, RESPECTIVELY. SINCE THE ACTUAL RELEASES ARE LESS THAN THE ALLOWABLE RELEASES, THE STORM WATER MANAGEMENT REQUIREMENTS FOR THE PROPOSED SITE ARE MET THROUGH THE EXISTING DETENTION STRUCTURE. ADDITIONALLY, THE APPLICANT RESERVES THE RIGHT TO ADD/EXPAND ADDITIONAL SWM FACILITIES WITHIN THE SITE TO MEET FUTURE SWM/BMP REQUIREMENTS PROVIDED MINIMUM OPEN SPACE AND TREE COVER REQUIREMENTS ARE MET. APPROXIMATE FOOTPRINT OF SUCH FUTURE FACILITIES ARE ±60' X ±100' AND ±25' X ±60' WOULD BE LOCATED PRIMARILY UNDER PARKING AREAS.

ADEQUATE OUTFALL NARRATIVE:

STORMWATER RUNOFF LEAVES THIS SITE IN THREE WAYS:
1) UNDETAINED THROUGH EXISTING WATER QUALITY MANAGEMENT AREAS
2) UNDETAINED THROUGH THE EXISTING RAIN GRADEN
2) DETAINED THROUGH THE EXISTING UNDERGROUND STRUCTURE

THE EXISTING UNDERGROUND STRUCTURE DETAINS THE STORMWATER RUNOFF TO PRE-DEVELOPMENT RATES AS SHOWN IN THE COMPUTATIONS ABOVE ON THIS SHEET. STORMWATER FROM THE RAIN GARDEN AND THE EXISTING UNDERGROUND STRUCTURE FLOW THROUGH AN EXISTING ONSITE CHANNEL WITH RIP-RAP. THE RIP-RAP CHANNEL AND STILLING BASIN WERE ADDED PER THE LAST SITE PLAN #17901-SP-001-2. THE REMAINING UNDETAINED STORMWATER FLOWS TO THE SOUTH THROUGH THE EXISTING WATER QUALITY MANAGEMENT AREAS AND EVENTUALLY JOINS THE EXISTING CHANNEL. ALL STORMWATER DISCHARGES OFFSITE TO A DEPRESSED AREA THAT IS PARALLEL TO THE RAILROAD TRACKS. SEE SHEET 8 FOR APPROVED OUTFALL COMPUTATIONS AND NARRATIVES FROM APPROVED SITE PLAN #17901-SP-001-2.

Hydrograph Report

1

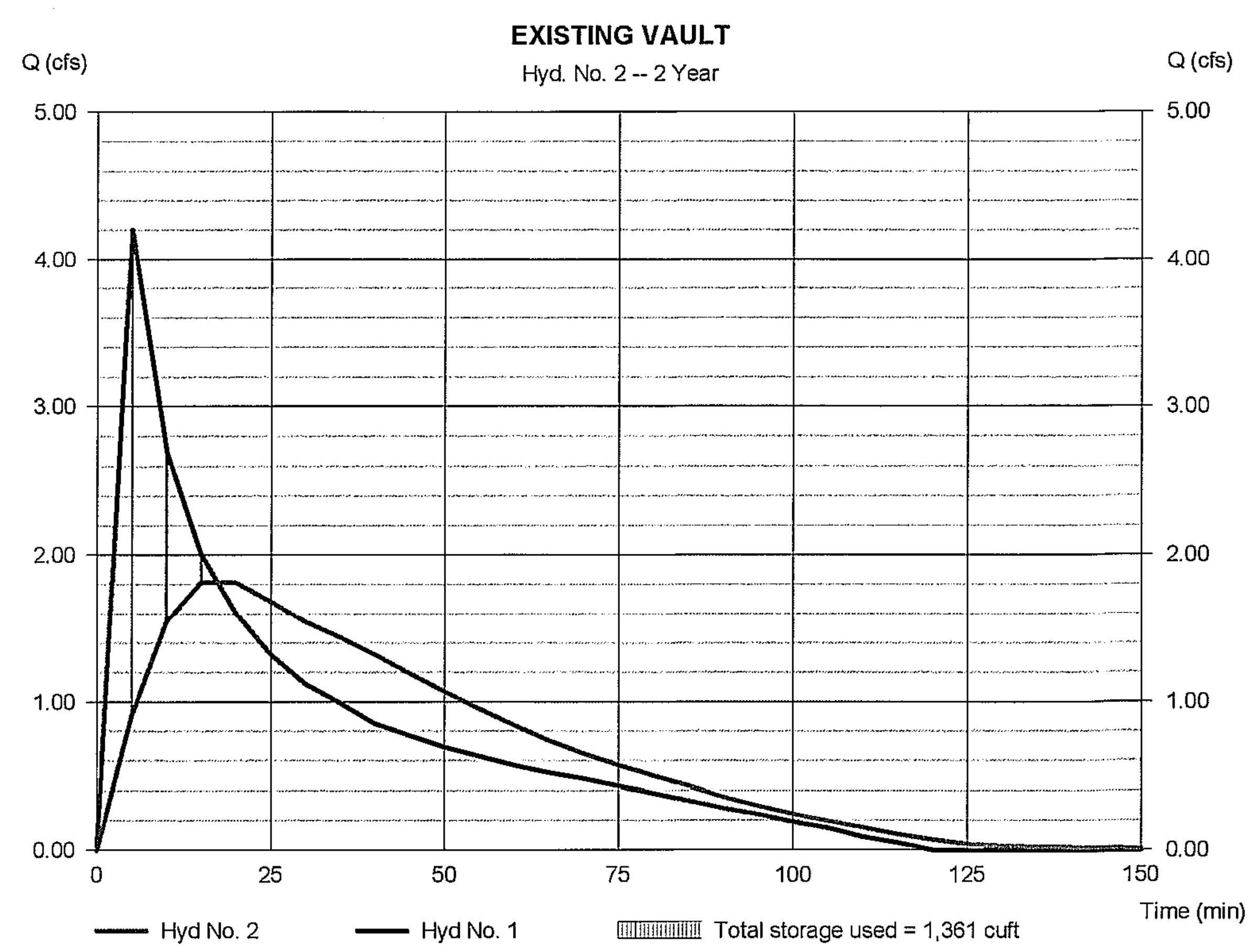
Hydraflow Hydrographs by Intelisolve v9.22 — Friday, May 29, 2009

Hyd. No. 2

EXISTING VAULT

Hydrograph type	= Reservoir	Peak discharge	= 1.816 cfs
Storm frequency	= 2 yrs	Time to peak	= 15 min
Time interval	= 5 min	Hyd. volume	= 6,173 cuft
Inflow hyd. No.	= 1 - TO DETENTION	Max. Elevation	= 170.05 ft
Reservoir name	= EXISTING VAULT	Max. Storage	= 1,361 cuft

Storage Indication method used.



Hydrograph Report

3

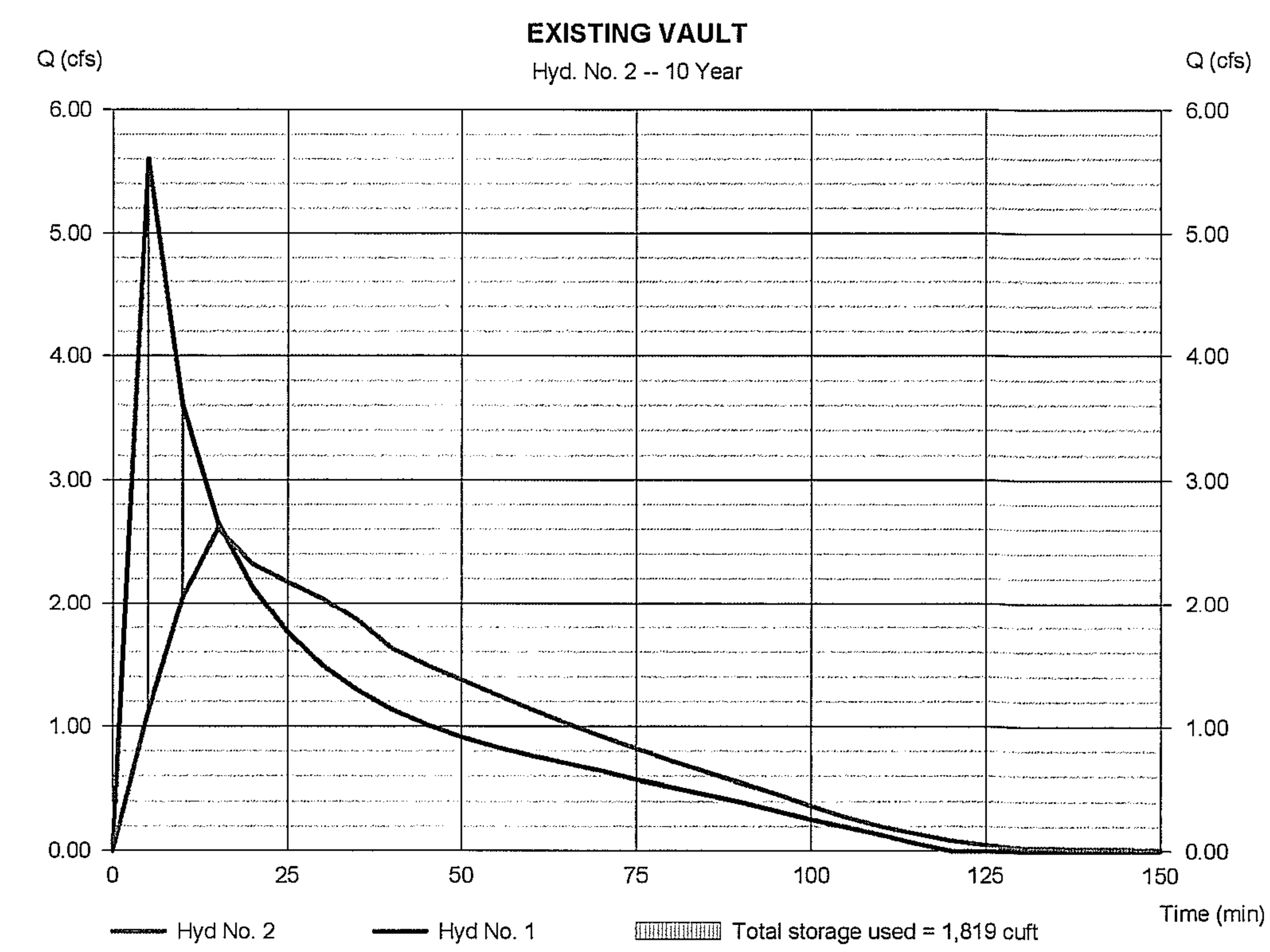
Hydraflow Hydrographs by Intelisolve v9.22 — Friday, May 29, 2009

Hyd. No. 2

EXISTING VAULT

Hydrograph type	= Reservoir	Peak discharge	= 2.607 cfs
Storm frequency	= 10 yrs	Time to peak	= 15 min
Time interval	= 5 min	Hyd. volume	= 8,213 cuft
Inflow hyd. No.	= 1 - TO DETENTION	Max. Elevation	= 171.18 ft
Reservoir name	= EXISTING VAULT	Max. Storage	= 1,819 cuft

Storage Indication method used.



Pond Report

2

Hydraflow Hydrographs by Intelisolve v9.22 — Friday, May 29, 2009

Pond No. 1 - EXISTING VAULT

Pond Data

Contours - User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 166.49 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	166.49	390	0	0
1.00	167.49	390	390	390
2.00	168.49	390	390	780
3.00	169.49	390	390	1,170
4.00	170.49	390	390	1,560
5.00	171.49	390	390	1,950
6.00	172.49	390	390	2,340

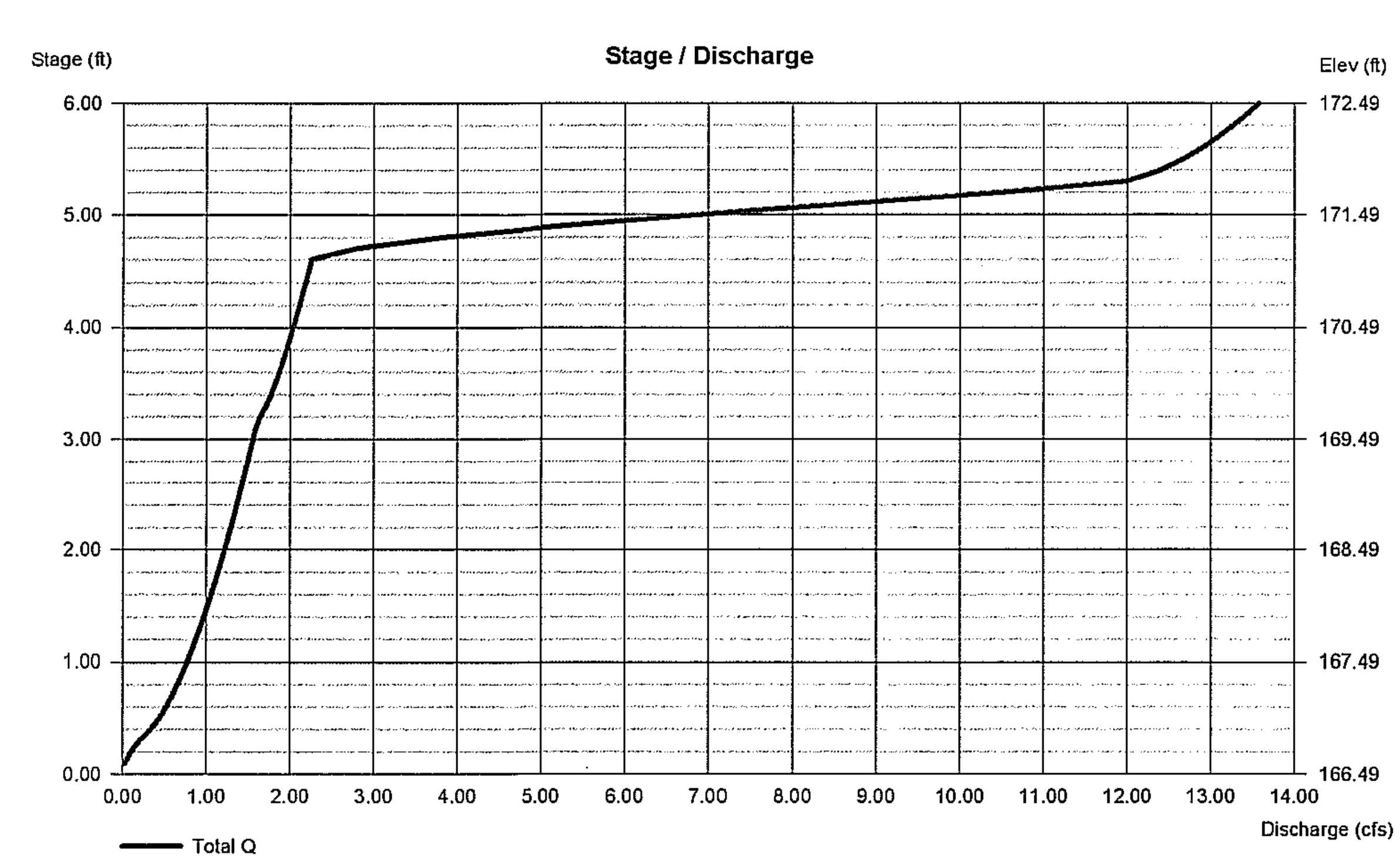
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 15.00	5.00	3.00	0.00
Span (in)	= 15.00	6.00	3.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 166.49	166.52	169.57	0.00
Length (ft)	= 23.00	0.00	0.00	0.00
Slope (%)	= 1.30	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 6.00	0.00	0.00	0.00
Crest El. (ft)	= 171.10	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= Yes	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



plication No. SEA85-L-022-03 Staff DeMonche
APPROVED SE / SP PLAN
SEE DEV CONDS DATED 1/21/10
ate of BOS (BZA) approval 1/26/10
heet 7 14

BMP FACILITY DESIGN CALCULATIONS

PART 1: LIST ALL OF THE SUBAREAS AND "C" FACTORS USED IN THE BMP COMPUTATIONS

SUBAREA DESIGNATION AND DESCRIPTION (1)	"C" (2)	ACRES (3)
A_1 ONSITE DRAINAGE AREA TO BIORETENTION	0.54	0.38
A_2 OFFSITE DRAINAGE AREA TO BIORETENTION	0.30	0.16
A_3 ONSITE DRAINAGE AREA TO STORMFILTER	0.80	0.96
A_4 WATER QUALITY MANAGEMENT AREA	0.30	0.73
A_5 ONSITE UNCONTROLLED	0.49	2.24
	TOTAL ONSITE AREA:	4.31 ACRES

PART 2: COMPUTE THE WEIGHTED AVERAGE "C" FACTOR FOR THE SITE

(A) AREA OF THE SITE (a) 4.31 ACRES

(B) WEIGHTED AVERAGE "C" FACTOR= 0.53

(SEE OVERALL SITE DRAINAGE SUMMARY, THIS SHEET)

PART 3 – COMPUTE THE TOTAL PHOSPHOROUS REMOVAL FOR THE SITE

SUBAREA DESIGNATION	BMP TYPE	EFFICENCY EFF (%)		AREA RATIO		"C" FACTOR	PRODUCT
(1)	(2)	(3)		(4)		(5)	(6)
A1	ONSITE TO BIORETENTION	65	x	0.38/4.31	x	0.54/0.53 =	5.84
A2	OFFSITE TO BIORETENTION	65	x	0.16/4.31	x	0.30/0.53 =	1.37
A3	ONSITE TO STORM FILTER	50	x	0.96/4.31	x	0.80/0.53 =	16.81
A3	WATER QUALITY MANAGEMENT AREA	100	x	0.73/4.31	x	1.00 =	16.94
							40.96

PART 4: DETERMINE COMPLIANCE WITH PHOSPHORUS REMOVAL REQUIREMENT

(A) SELECT REQUIREMENT (a) 40%

* WATER SUPPLY OVERLAY DISTRICT (OCCOQUAN WATERSHED) = 50 %

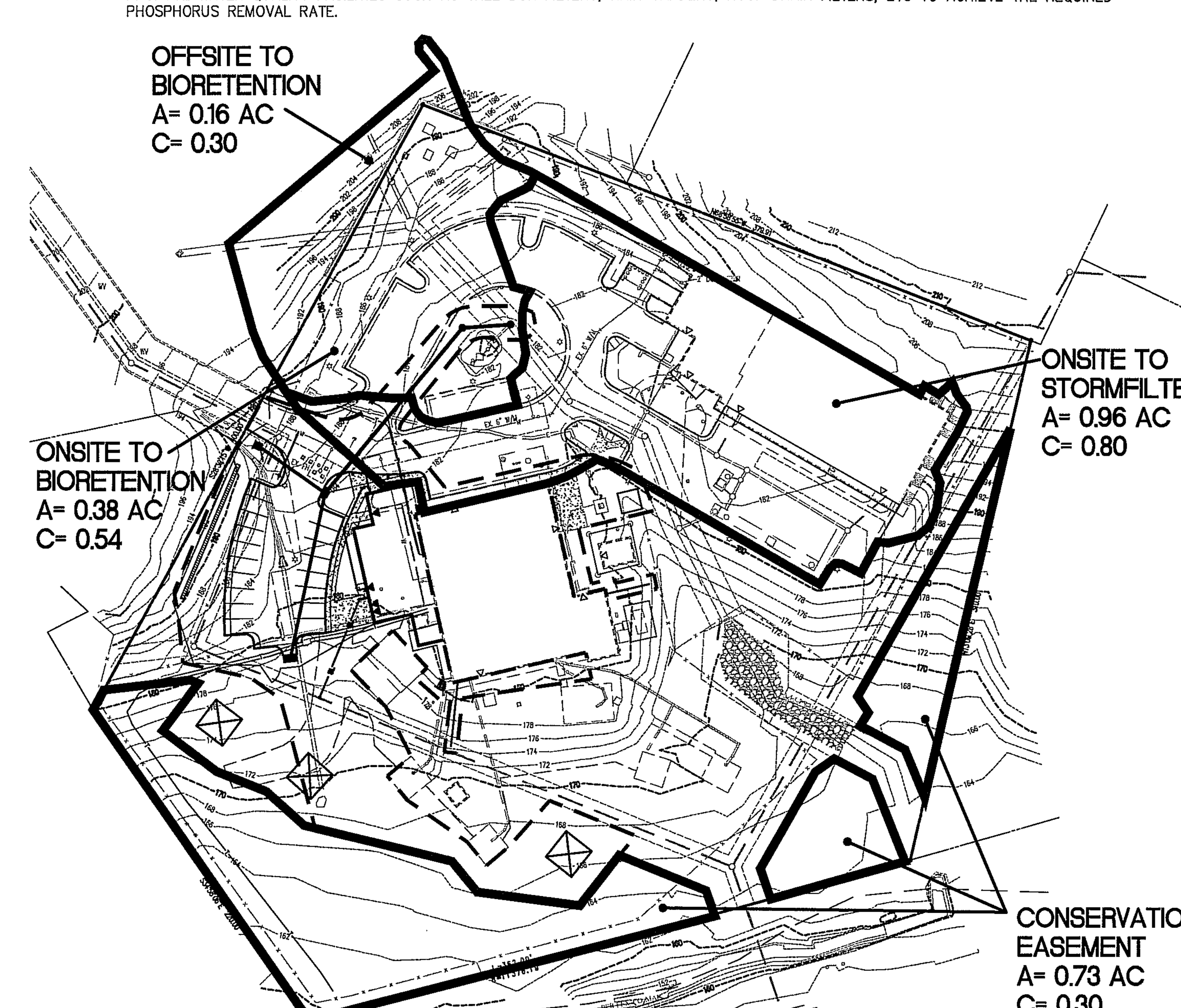
* CHESAPEAKE BAY PRESERVATION AREA (NEW DEVELOPMENT) = 40 %

* CHESAPEAKE BAY PRESERVATION AREA (REDEVELOPMENT) =
[1–0.9 x ("I"PRE/"I"POST)] x 100 = [1–0.9 x (0.34/0.36)] x 100= 15%

(B) IF LINE 3(A) 40.96% > LINE 4(A) 40%, THEN PHOSPHOROUS REMOVAL IS SATISFIED.

BMP NARRATIVE:

THERE IS A COMBINATION OF EXISTING BMP PRACTICES ON THIS SITE INCLUDING A BIORETENTION AREA, A STORM FILTER AND A WATER QUALITY MANAGEMENT AREA. THE PHOSPORUS REMOVAL REQUIREMENT FOR THIS SITE IS 40.0%. THE BIORETENTION AREA CAPTURES 0.16 AC OFFSITE AND 0.38 AC ONSITE AT C FACTORS OF 0.30 AND 0.54 RESPECTIVELY. THE STORMFILTER CAPTURES 0.96 ACRES AT A C FACTOR OF 0.80. THERE IS AN EXISTING WATER QUALITY MANAGEMENT AREA IN A CONSERVATION EASEMENT THAT TOTALS 0.73 AC WITH A C FACTOR OF 0.30. THE TOTAL PHOSPORUS REMOVAL OBTAINED USING THESE METHODS IS 40.96% WHICH IS GREATER THAN THE REQUIRED 40%, THEREFORE THE BMP REQUIREMENT FOR THE SITE IS MET. ALL BMP FACILITIES ARE TO BE PRIVATELY OWNED AND MAINTAINED.
IF AT TIME OF SITE PLAN IT IS DETERMINED THAT THE EXISTING BMP FACILITIES ARE NOT ADEQUATE, THE ENGINEER RESERVES THE RIGHT TO PROPOSE WATER QUALITY FACILITIES SUCH AS TREE BOX FILTERS, RAIN GARDENS, ROOF DRAIN FILTERS, ETC TO ACHIEVE THE REQUIRED PHOSPHORUS REMOVAL RATE.



BMP DRAINAGE DIVIDES MAP
SCALE: 1"= 60'

PRELIMINARY STORMWATER MANAGEMENT PLAN

REVISION APPROVED BY

NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046
(703) 532-6163 FAX (703) 533-1301 WWW.WLPINC.COM

DRAWN: MRW
DATE: 6/2/09; REV. 7/17/09; 10/7/09
REV. 10/26/09; 10/29/09; 1/11/10
SCALE: AS NOTED

COMMONWEALTH OF VIRGINIA — JEFFREY J. STUCHEL Lic. No.031215 1/11/10 — PROFESSIONAL ENGINEER

PBS
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA

File No. FF-11 Tax Map No. 81-1 Job No. 80-020 Cadd Dwg. File: Zoning2009\80020SEA Xref:

CULVERT COMPUTATION- 10 YEAR STORM

Project PBS

Plan Sheet No. Designer LAN Sheet ___ of ___
Rev. Date ___ Date 11/12/04

HYDROLOGICAL DATA:
D.A.= 44.83 AC.

AHW Controls STATION ___
100YR FLOOD PLAIN ___ ELEV. ___
DESIGN AHW DEPTH ___ ELEV. ___
STRUCTURES ___ ELEV. ___
FREQ. TW ELEV.

SHOULDER ELEV. ___ ℄ ELEV. 169 SKEW ___ COVER ___

INV. EL. 149.71 So= 1.5% INV. EL. 148.04
ORIG. GR. ELEV. N/A L= 111 FT ORIG. GR. ELEV. N/A

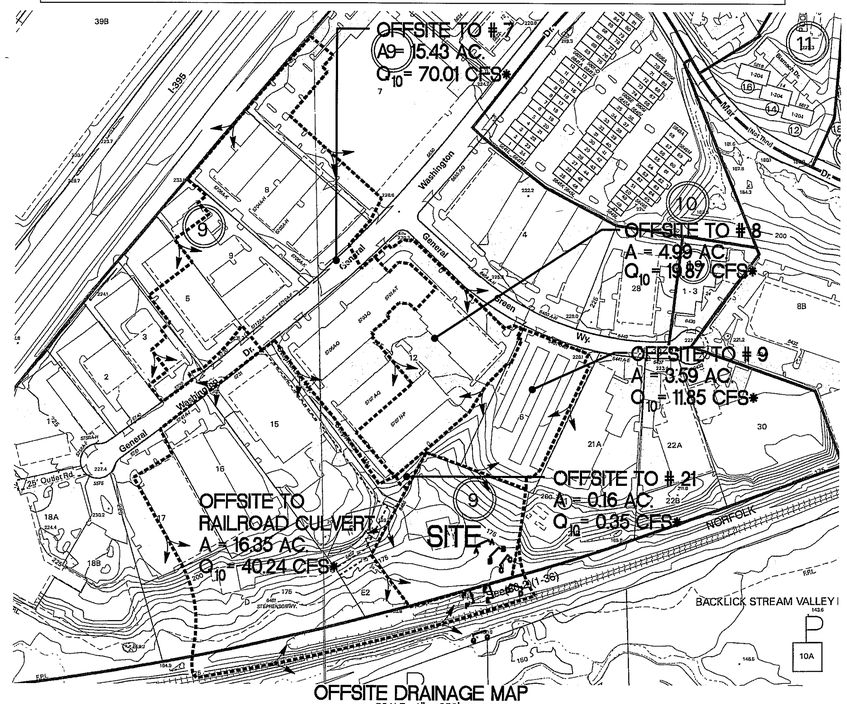
DISCHARGE'S USED
Q10 YR= 155.68 CFS
Q___= ___ CFS
Q___= ___ CFS
Q___= ___ CFS
Q___= ___ CFS

RISK ASSESSMENT ADT ___
DETOURS AVAILABLE ___ LENGTH ___
OVER TOPPING STAGE ___
FLOOD PLAIN MANAGEMENT ___
CRITERIA AND SIGNIFICANT IMPACT ___

CULVERT TYPE & SIZE	Q	Q/B	HEADWATER COMPUTATIONS: INLET CONT. HW/D	INLET CONT. HW	OUTLET CONTROL Ke	dc	(dc+D)/2	ho	H	LSo	HW	CONT. HW ELEV.	OUTLET VELOCITY		END TREAT.	COMMENTS
EX. 3' X 4' CONC. BOX CULVERT	155.68	51.89	2.4	9.6								159.31		12.5		159.31 < 169 WILL NOT OVERTOP RAILROAD

NOTE: PIPE IS ADEQUATE TO CARRY 10 YEAR DESIGN FLOW WITHOUT OVER TOPPING

DESIGN FLOOD EXCEED. PROB ___ ELEV. ___
OVERTOP FLOOD EXCEED. PROB ___ ELEV. ___
BASE FLOOD 1% EXCEED. PROB ___ ELEV. ___



ADEQUATE OUTFALL NARRATIVE

AN UNDERGROUND SWM VAULT IS PROPOSED TO DETAIN THE 2-YEAR AND 10-YEAR STORMS AND RELEASE THEM BELOW PRE-DEVELOPMENT RATES. THE TOTAL SITE RELEASE PRE-DEVELOPMENT IS 10.10 CFS DURING THE 2-YEAR STORM AND 13.47 CFS DURING THE 10-YEAR STORM. THE TOTAL SITE RELEASES POST DEVELOPMENT HAVE BEEN REDUCED FROM PRE-DEVELOPMENT DUE TO THE PROPOSED ONSITE DETENTION. THE POST DEVELOPMENT SITE RELEASES ARE 10.03 CFS DURING THE 2-YEAR STORM AND 13.36 CFS DURING THE 10-YEAR STORM. THEREFORE, THE DOWNSTREAM OUTFALL CONDITIONS WILL NOT BE ADVERSELY AFFECTED SINCE THERE IS A REDUCTION IN RUNOFF RATE PROPOSED WITH THIS PLAN. 3.35 UNDETAINED ONSITE ACRES AT A C FACTOR OF 0.45 OUTFALL VIA OVERLAND SHEET AND CHANNEL FLOW TOWARDS THE SOUTH. ANOTHER 0.96 ACRES AT A C FACTOR OF 0.79 IS FIRST ROUTED TO THE PROPOSED DETENTION VAULT AND THEN FLOWS TO THE ONSITE CHANNEL. THREE SECTIONS (A-A, B-B & C-C) HAVE BEEN PROVIDED ON THIS SHEET IN ORDER TO DEMONSTRATE ADEQUACY OF THE ONSITE NATURAL CHANNEL. THE 2-YEAR STORM IS CONTAINED WITHIN THE BED AND BANKS OF ALL SECTIONS. THE 2-YEAR VELOCITIES FOR THE SECTIONS RANGE FROM 4.31 TO 5.98 AND THEREFORE ARE CONSIDERED TO BE EROSIVE. RIP-RAP IS PROPOSED TO BE ADDED ALONG THE LENGTH OF THE CHANNEL FROM THE PROPOSED ONSITE STORM SEWER OUTFALL TO THE LIMITS OF CLEARING AND GRADING. THE ONSITE CHANNEL DISCHARGES INTO A DEPRESSED AREA THAT IS PARALLEL TO THE RAILROAD TRACKS ON THE SOUTHERN RAILROAD COMPANY PROPERTY. THIS DEPRESSED AREA SURROUNDS AN OPENING TO AN EXISTING 3' X 4' CULVERT WHICH RUNS UNDERNEATH THE RAILROAD TRACKS. TODAY, THE CULVERT OPERATES UNDER HEADWATER CONDITIONS AND THIS AREA IS INUNDATED DURING STORM EVENTS. SEE CULVERT COMPUTATION ON THIS SHEET. DURING A STORM EVENT, THE DEPRESSED AREA FILLS UP AND THEN DRAWS DOWN AS WATER IS PUSHED THROUGH THE CULVERT. THE RUNOFF IS CURRENTLY CONTAINED ON THE SOUTHERN RAILROAD COMPANY PROPERTY DURING THE 10-YEAR STORM AND DOES NOT OVERTOP THE RAILROAD TRACKS. SECTIONS D-D, E-E & F-F PROVIDED ON THIS SHEET SHOW THE 10-YEAR WATER SURFACE ELEVATION OF 159.31 (PER CULVERT COMPUTATION ON THIS SHEET). AT THIS ELEVATION THE RUNOFF IS CONTAINED WITHIN THE DEPRESSED AREA AND DOES NOT OVERTOP THE RAILROAD TRACKS. SECTION G-G ON SHT. 12(ADDED TO THIS SHEET) SHOWS THE 10 YEAR WATER SURFACE ELEVATION AT THE POINT WHERE THE CULVERT DISCHARGES INTO THE NATURAL CHANNEL ON THE OPPOSITE SIDE OF THE RAILROAD TRACKS FROM THE SITE. THE 10-YEAR STORM IS CONTAINED WITHIN THE BED AND BANKS AND IS AT A NON-EROSIVE VELOCITY. AT THIS POINT THE CHANNEL ENTERS A FLOODPLAIN. SINCE WE ARE DETAINING ONSITE TO PRE-DEVELOPMENT RELEASE RATES WE ARE NOT ADVERSELY IMPACTING THE CULVERT FUNCTION AND IT WILL CONTINUE TO OPERATE AS IT DOES TODAY. THE CULVERT ULTIMATELY DISCHARGES INTO THE BACKLICK STREAM FLOOD PLAIN ON THE OTHER SIDE OF THE RAILROAD TRACKS.

CULVERT COMPUTATION- 100 YEAR STORM

Project PBS

Plan Sheet No. Designer LAN Sheet ___ of ___
Rev. Date ___ Date 03/10/05

HYDROLOGICAL DATA:
D.A.= 44.83 AC.

AHW Controls STATION ___
100YR FLOOD PLAIN ___ ELEV. ___
DESIGN AHW DEPTH ___ ELEV. ___
STRUCTURES ___ ELEV. ___
FREQ. TW ELEV.

SHOULDER ELEV. ___ ℄ ELEV. 169 SKEW ___ COVER ___

INV. EL. 149.71 So= 1.5% INV. EL. 148.04
ORIG. GR. ELEV. N/A L= 111 FT ORIG. GR. ELEV. N/A

DISCHARGE'S USED
Q100YR= 264.70 CFS
Q___= ___ CFS
Q___= ___ CFS
Q___= ___ CFS
Q___= ___ CFS

RISK ASSESSMENT ADT ___
DETOURS AVAILABLE ___ LENGTH ___
OVER TOPPING STAGE ___
FLOOD PLAIN MANAGEMENT ___
CRITERIA AND SIGNIFICANT IMPACT ___

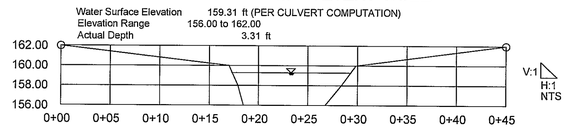
CULVERT TYPE & SIZE	Q	Q/B	HEADWATER COMPUTATIONS: INLET CONT. HW/D	INLET CONT. HW	OUTLET CONTROL Ke	dc	(dc+D)/2	ho	H	LSo	HW	CONT. HW ELEV.	OUTLET VELOCITY		END TREAT.	COMMENTS
EX. 3' X 4' CONC. BOX CULVERT	264.70	88.23	5.1	20.4								170.11		16.0		170.11 > 169 OVERLAND RELIEF WILL FLOW OVERTOP OF RAILROAD AND WILL NOT IMPACT ANY STRUCTURES.

NOTE: BUILDING ELEVATION IS 181.50. 100-YR CULVERT WSEL IS 170.11, THEREFORE THE ONSITE STRUCTURE WILL NOT BE IMPACTED DURING THE 100-YR STORM EVENT.

DESIGN FLOOD EXCEED. PROB ___ ELEV. ___
OVERTOP FLOOD EXCEED. PROB ___ ELEV. ___
BASE FLOOD 1% EXCEED. PROB ___ ELEV. ___

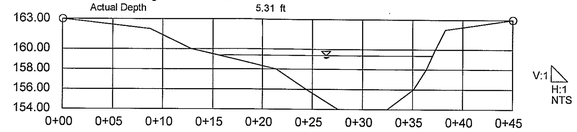
SECTION D-D: 10-YR STORM CULVERT WSEL

Water Surface Elevation 159.31 ft (PER CULVERT COMPUTATION)
Elevation Range 156.00 to 162.00
Actual Depth 3.31 ft



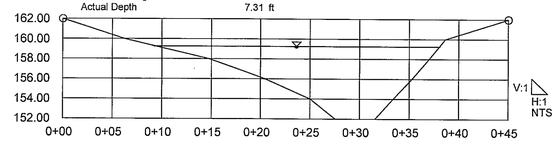
SECTION E-E: 10-YR STORM CULVERT WSEL

Water Surface Elevation 159.31 ft (PER CULVERT COMPUTATION)
Elevation Range 154.00 to 163.00
Actual Depth 5.31 ft



SECTION F-F: 10-YR STORM CULVERT WSEL

Water Surface Elevation 159.31 ft (PER CULVERT COMPUTATION)
Elevation Range 152.00 to 162.00
Actual Depth 7.31 ft



SECTION G-G: 10 YR. STORM DISCHARGE

Input Data

Slope 0.005000 ft/ft
Discharge 179.00 cfs (10-YR DISCHARGE BASED ON CULVERT COMP.)
Options

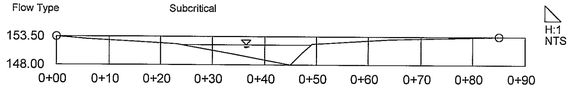
Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results

Mannings Coefficient	0.040
Water Surface Elevation	151.80 ft
Elevation Range	148.04 to 153.50
Flow Area	46.8 ft²
Wetted Perimeter	26.61 ft
Top Width	24.73 ft
Actual Depth	3.76 ft
Critical Elevation	150.87 ft
Critical Slope	0.022862 ft/ft
Velocity	3.83 ft/s
Velocity Head	0.23 ft
Specific Energy	152.03 ft
Froude Number	0.49
Flow Type	Subcritical

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00	0+85	0.040



plication No. SEA 85-L-022-03 Staff DeMarche
APPROVED (SE) SP PLAN
SEE DEV CONDS DATED 1/21/10
ate of (BOS) (BZA) approval 1/26/10
heet 8 14

SECTION A-A:

SECTION A-A LIES WITHIN THE PROPOSED STILLING BASIN. PLEASE SEE SHEET 14A FOR STILLING BASIN COMPUTATIONS AND DETAILS.

SECTION B-B: 2-YEAR STORM

Input Data

Slope 0.017700 ft/ft
Discharge 80.60 cfs
Options

Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results

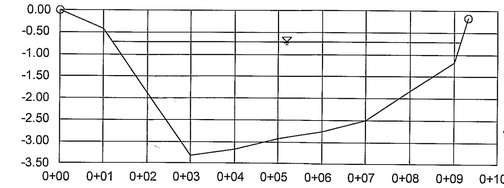
Mannings Coefficient	0.040
Water Surface Elevation	-0.72 ft
Elevation Range	-3.33 to 0.00
Flow Area	13.5 ft²
Wetted Perimeter	10.13 ft
Top Width	7.94 ft
Actual Depth	2.61 ft
Critical Elevation	-0.96 ft
Critical Slope	0.027254 ft/ft
Velocity	5.98 ft/s
Velocity Head	0.56 ft
Specific Energy	-0.16 ft
Froude Number	0.81
Flow Type	Subcritical

Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00	0+09	0.040

Natural Channel Points

Station (ft)	Elevation (ft)
0+00	0.00
0+01	-0.42
0+03	-3.33
0+04	-3.17
0+05	-2.92
0+06	-2.75
0+07	-2.50
0+08	-1.83
0+09	-1.17
0+09	-0.17



SECTION C-C: 2-YEAR STORM

Input Data

Slope 0.019200 ft/ft
Discharge 80.90 cfs
Options

Current Roughness Method	Improved Lotter's Method
Open Channel Weighting Method	Improved Lotter's Method
Closed Channel Weighting Method	Horton's Method

Results

Mannings Coefficient	0.040
Water Surface Elevation	-0.32 ft
Elevation Range	-2.00 to 0.00
Flow Area	14.4 ft²
Wetted Perimeter	12.59 ft
Top Width	11.48 ft
Actual Depth	1.68 ft
Critical Elevation	-0.43 ft
Critical Slope	0.024860 ft/ft
Velocity	5.63 ft/s ***
Velocity Head	0.49 ft
Specific Energy	0.17 ft
Froude Number	0.89
Flow Type	Subcritical

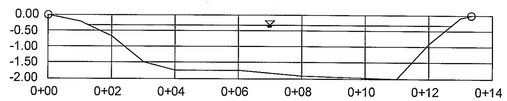
Roughness Segments

Start Station	End Station	Mannings Coefficient
0+00	0+13	0.040

Natural Channel Points

Station (ft)	Elevation (ft)
0+00	0.00
0+01	-0.21
0+02	-0.66
0+03	-1.50
0+04	-1.75
0+06	-1.75
0+08	-1.92
0+11	-2.00
0+12	-0.92
0+13	-0.08
0+13	0.00

***NOTE: THIS IS THE VELOCITY OF CHANNEL SECTION C-C AS IT EXISTS TODAY. THE VELOCITY AT THIS CHANNEL SECTION WILL BE REDUCED TO 3.6S FPS WITH THE PROPOSED STILLING BASIN. PLEASE SEE STILLING BASIN COMPUTATIONS ON SHEET 14A.



OUTFALL COMPUTATIONS AND NARRATIVES (PER APPROVED SITE PLAN #17901-SP-001-2

REVISION APPROVED BY

NO.	DESCRIPTION	DATE	REV. BY	APPROVED	DATE

PBS
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA

WALTER L. PHILLIPS
INCORPORATED
CIVIL ENGINEERS LAND SURVEYORS PLANNERS LANDSCAPE ARCHITECTS
207 PARK AVENUE FALLS CHURCH, VIRGINIA 22046 WWW.WLPINC.COM
(703) 532-6163 FAX (703) 533-1301

SCALE: AS NOTED DRAWN: MHW
DATE: 6/2/08, REV: 7/17/08, 10/7/08
REV: 10/29/08, 10/29/08, 1/11/10

JEFFREY J. STUCHL Lic. No.031215 COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER

SHEET: 8 OF 14

File No. FF-11 Tax Map No. 81-1 Job No. 80-020 Cadd Dwg. File: Zoning2009\800200UTFALLXref:

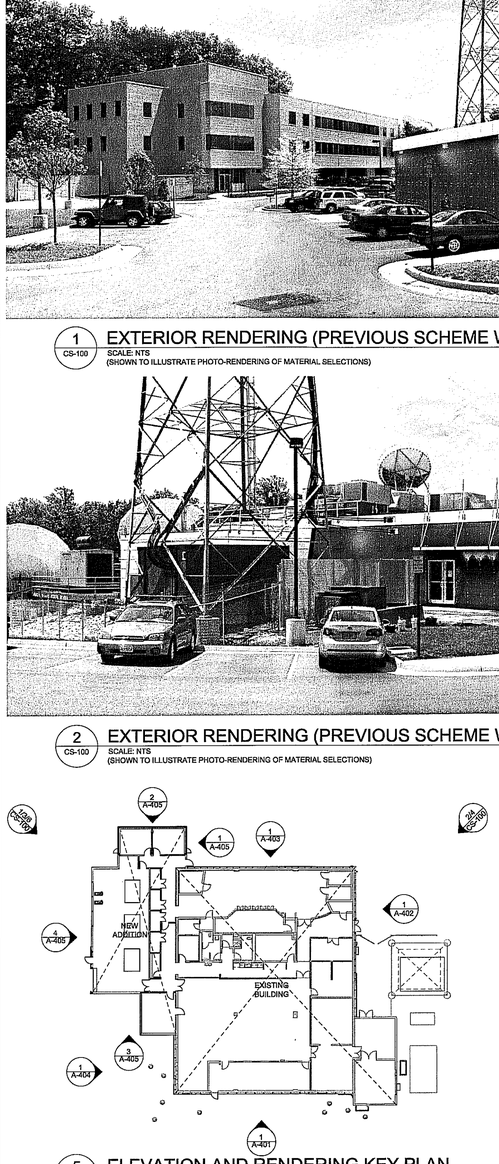
SATELLITE OPERATIONS CENTER 1
EXTERIOR RENOVATIONS

PBS

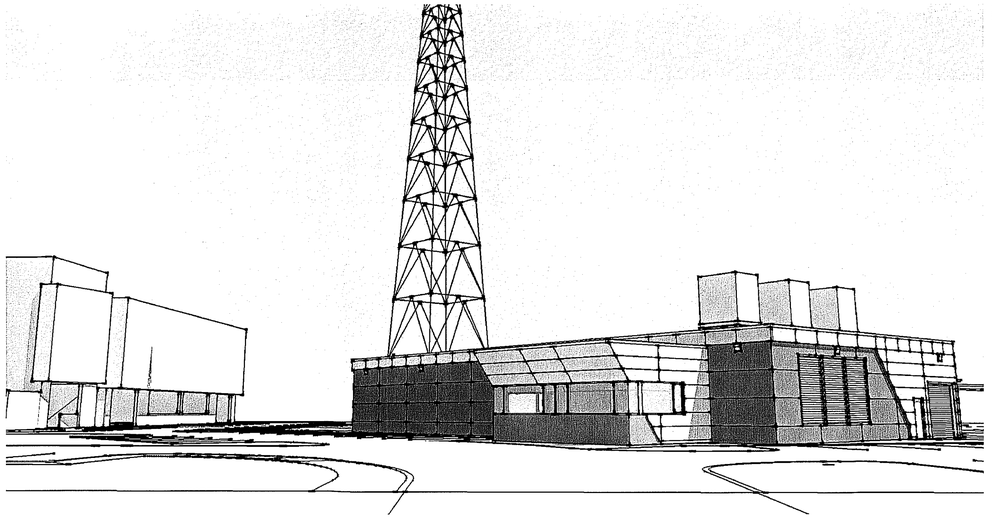
SEA ILLUSTRATIVE SET
DRAWING INDEX

1 CS-100 EXTERIOR RENDERING (PREVIOUS SCHEME WITHOUT ADDITION)
SCALE: NTS
(SHOWN TO ILLUSTRATE PHOTO-RENDERING OF MATERIAL SELECTIONS)

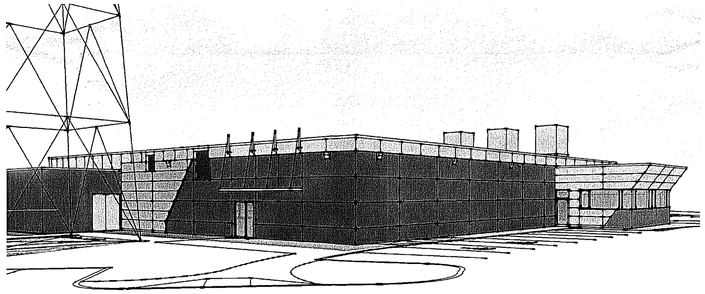
2 CS-100 EXTERIOR RENDERING (PREVIOUS SCHEME WITHOUT ADDITION)
SCALE: NTS
(SHOWN TO ILLUSTRATE PHOTO-RENDERING OF MATERIAL SELECTIONS)



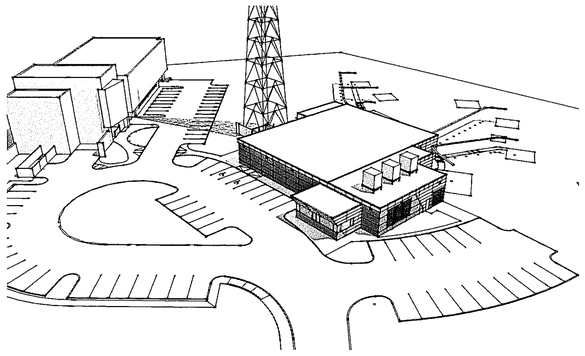
5 CS-100 ELEVATION AND RENDERING KEY PLAN
SCALE: 1" = 30'-0"



3 CS-100 EXTERIOR MASSING RENDERING (WITH ADDITION)
SCALE: NTS



4 CS-100 EXTERIOR MASSING RENDERING (WITH ADDITION)
SCALE: NTS



6 CS-100 EXTERIOR MASSING RENDERING (WITH ADDITION)
SCALE: NTS

Application No. SEA 85-L-022-03 Staff: DeManche
APPROVED (SE) SP PLAN
SEE DEV CONDS DATED 1/21/10
Date of (BOS) (BZA) approval 1/26/10
Sheet 9 of 14

ILLUSTRATIVE ELEVATIONS

bloomfield ARCHITECTS
1550 Latimar Street
Philadelphia, PA 19102
T: 215.732.7311
F: 215.732.3212
www.bloomfieldassociates.com

ARCHITECT

ARCH SEAL

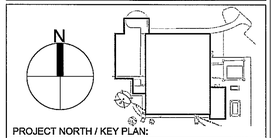
PBS SATELLITE OPERATIONS CENTER
6455 Stephenson Way
Alexandria, VA 22312
PH: (703) 739-5474
FX: (571) 436-4292

CLIENT

S.O.C. 1
ADDITION AND
RENOVATIONS
PROJECT

EXISTING WORK
DEMOLITION WORK
NEW WORK

DRAWING/WORK KEY:



PROJECT NORTH / KEY PLAN:

REVISIONS

ISSUE:

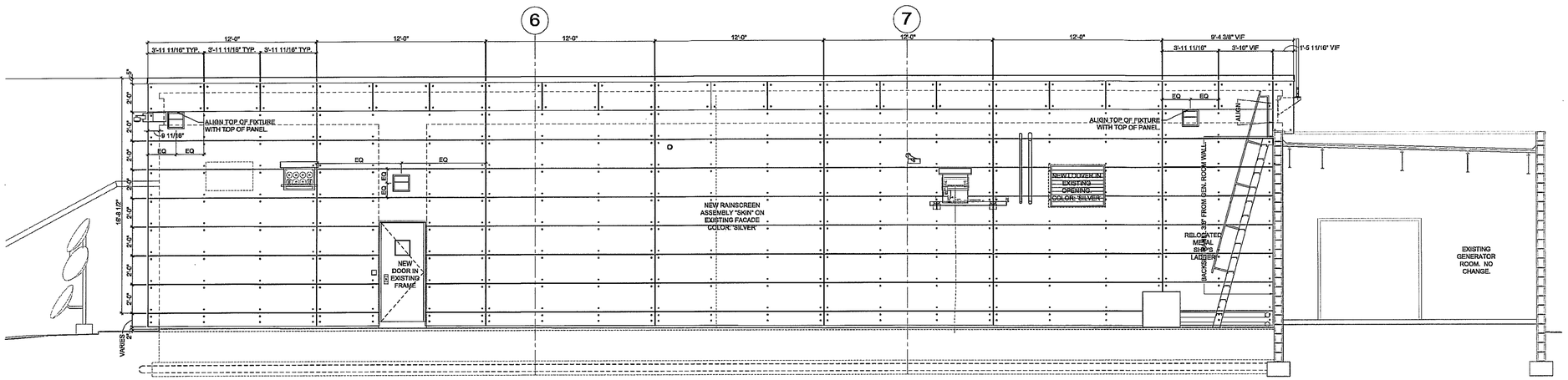
S.E.A.
ILLUSTRATIVE

COVER SHEET
SHEET TITLE

B & A PROJECT NUMBER - 632

DATE: 15 OCT 2009	SHEET No.
SCALE: NTS	CS-100
DRAWN BY: DLK	
CHECKED BY: MM	

plication No. SEA 85-L-022-03 Staff: DeMonche
APPROVED (BOS) / SP PLAN
SEE DEV CONDS DATED 1/21/10
ate of (BOS) (BZA) approval 1/26/10
10 14



1 / A-401 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

ILLUSTRATIVE ELEVATIONS

bloomfield ASSOCIATES ARCHITECTS
1550 Latmer Street
Philadelphia, PA 19102
T: 215.732.7311
F: 215.732.3212
www.bloomfieldandassociates.com

ARCHITECT

ARCH SEAL

PBS
SATELLITE OPERATIONS CENTER
6455 Stephenson Way
Alexandria, VA 22312
PH: (703) 739-5474
FX: (571) 436-4292

CLIENT

S.O.C. 1
ADDITION AND RENOVATIONS
PROJECT

EXISTING WORK
DEMOLITION WORK
NEW WORK

DRAWING/WORK KEY:

N
PROJECT NORTH / KEY PLAN:

REVISIONS	

ISSUE:

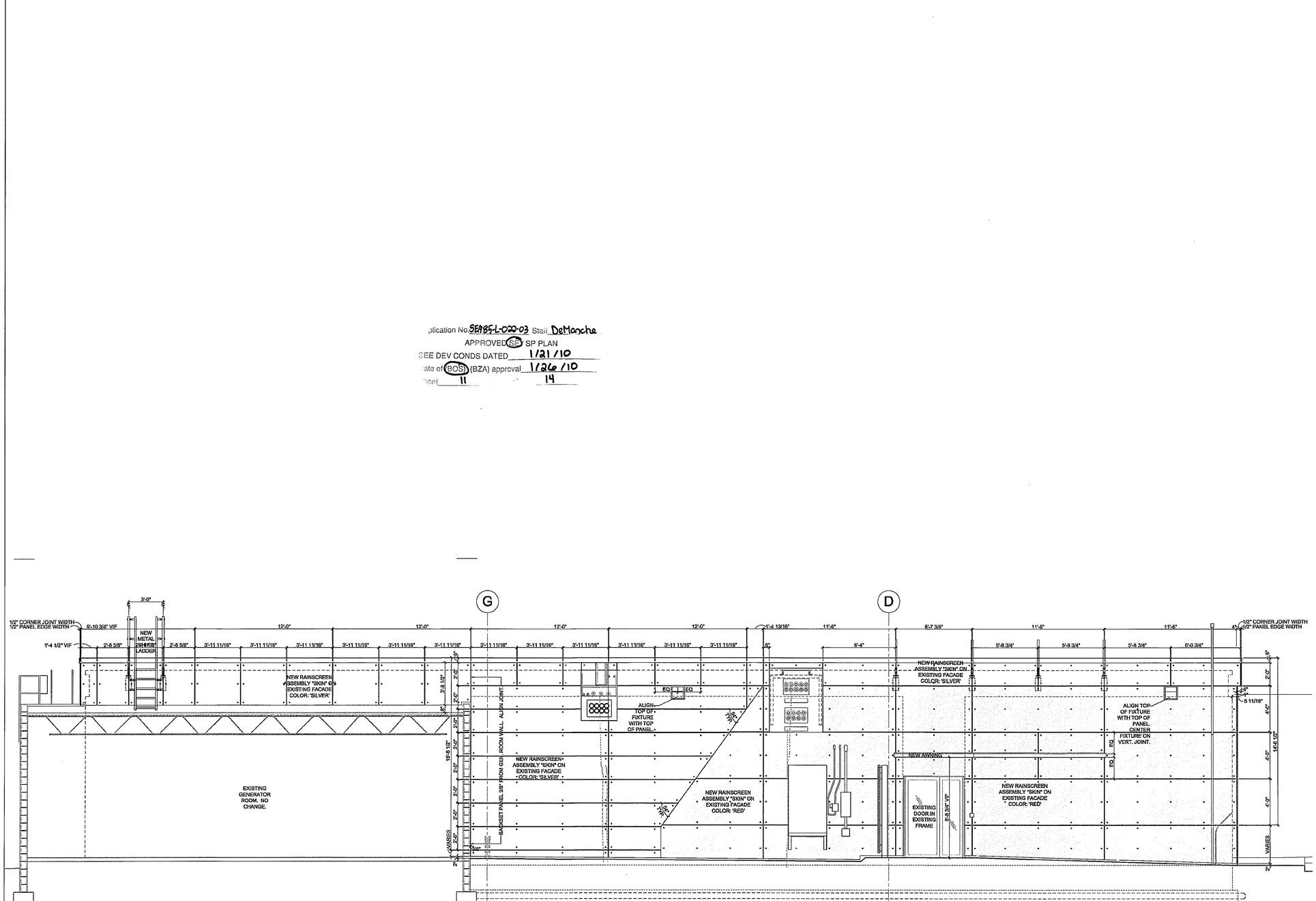
S.E.A.
ILLUSTRATIVE

SOUTH ELEVATION DETAILS
SHEET TITLE

B & A PROJECT NUMBER - 632

DATE: 15 OCT 2009	SHEET No.
SCALE: 1/4" = 1'-0"	A-401
DRAWN BY: DLK	
CHECKED BY: MM	

plication No. SE#85-L-020-03 Staff DeMarche
APPROVED (SE) SP PLAN
SEE DEV CONDS DATED 1/21/10
ate of (BOS) (BZA) approval 1/26/10
heet 11 14



1 A-402 EAST ELEVATION
SCALE: 1/4" = 1'-0"

ILLUSTRATIVE ELEVATIONS

bloomfield ASSOCIATES ARCHITECTS
1650 Latimer Street
Philadelphia, PA 19102
T: 215.732.7311
F: 215.732.3212
www.bloomfieldandassociates.com

ARCHITECT

ARCH SEAL

PBS

SATELLITE OPERATIONS CENTER

6455 Stephenson Way
Alexandria, VA 22312
PH: (703) 739-5474
FX: (571) 436-4292

CLIENT

S.O.C. 1
ADDITION AND RENOVATIONS
PROJECT

EXISTING WORK
DEMOLITION WORK
NEW WORK

DRAWING/WORK KEY:

N
PROJECT NORTH / KEY PLAN:

REVISIONS

ISSUE:

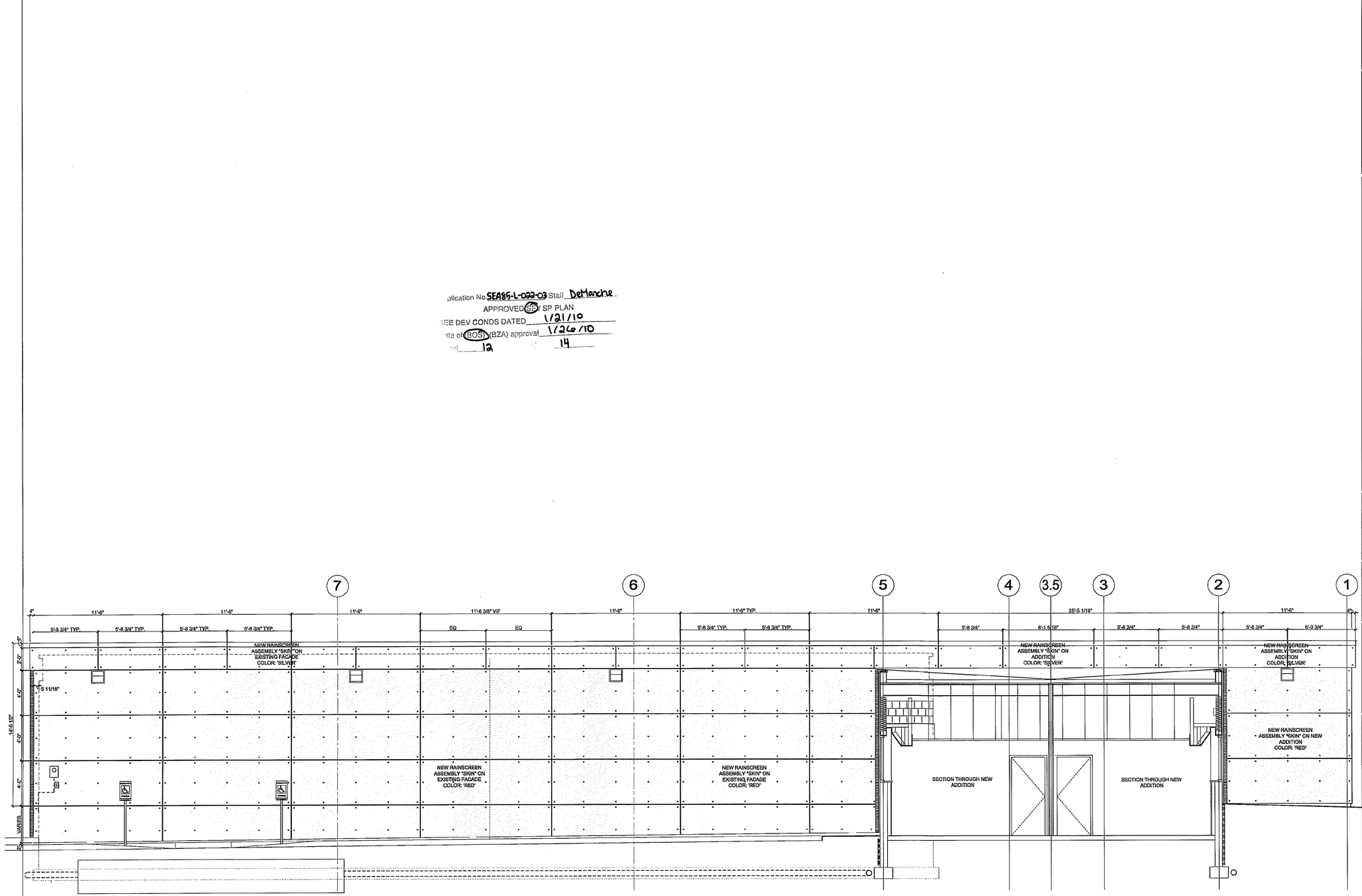
S.E.A. ILLUSTRATIVE

EAST ELEVATION DETAILS
SHEET TITLE

B & A PROJECT NUMBER - 632

DATE: 15 OCT 2009	SHEET No.
SCALE: 1/4" = 1'-0"	A-402
DRAWN BY: DLK	
CHECKED BY: MM	

pplication No. SE88-L-099-03 Staff DeMenche
APPROVED (SE) / SP PLAN
EE DEV CONDS DATED 1/21/10
ate of (BOS) (BZA) approval 1/26/10
ent 12 14



1 A-403 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

ILLUSTRATIVE ELEVATIONS

bloomfield ASSOCIATES ARCHITECTS
1550 Latimer Street
Philadelphia, PA 19102
T: 215.732.7311
F: 215.732.3212
www.bloomfieldandassociates.com

ARCHITECT

ARCH SEAL

PBS SATELLITE OPERATIONS CENTER

6455 Stephenson Way
Alexandria, VA 22312
PH: (703) 739-5474
FX: (571) 436-4292

CLIENT

S.O.C. 1
ADDITION AND RENOVATIONS
PROJECT

EXISTING WORK
DEMOLITION WORK
NEW WORK

DRAWING/WORK KEY:

PROJECT NORTH / KEY PLAN:

REVISIONS

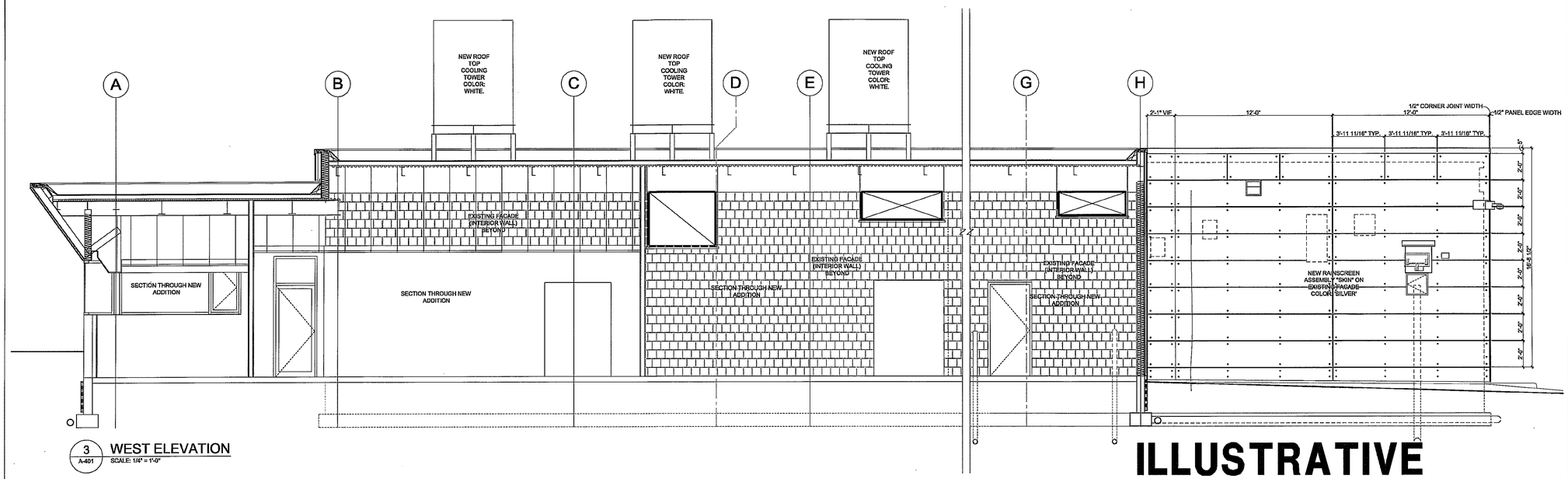
ISSUE:

S.E.A.
ILLUSTRATIVE

NORTH ELEVATION DETAILS
SHEET TITLE

B & A PROJECT NUMBER - 632	
DATE: 15 OCT 2009	SHEET No.
SCALE: 1/4" = 1'-0"	A-403
DRAWN BY: DLK	
CHECKED BY: MM	

plication No. SEA85-L-022-03 Staff DeManche
APPROVED (SE) SP PLAN
FE DEV CONDS DATED 1/21/10
te of (BOS) (BZA) approval 1/26/10
13 14



3 A-401 WEST ELEVATION
SCALE: 1/4" = 1'-0"

ILLUSTRATIVE ELEVATIONS

bloomfield ASSOCIATES ARCHITECTS
1550 Latimer Street
Philadelphia, PA 19102
T: 215.732.7311
F: 215.732.3212
www.bloomfieldandassociates.com

ARCHITECT

ARCH SEAL

PBS SATELLITE OPERATIONS CENTER

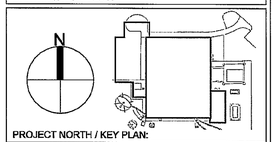
6455 Stephenson Way
Alexandria, VA 22312
PH: (703) 739-5474
FX: (571) 436-4292

CLIENT

S.O.C. 1
ADDITION AND RENOVATIONS
PROJECT

EXISTING WORK
DEMOLITION WORK
NEW WORK

DRAWING/WORK KEY:



PROJECT NORTH / KEY PLAN:

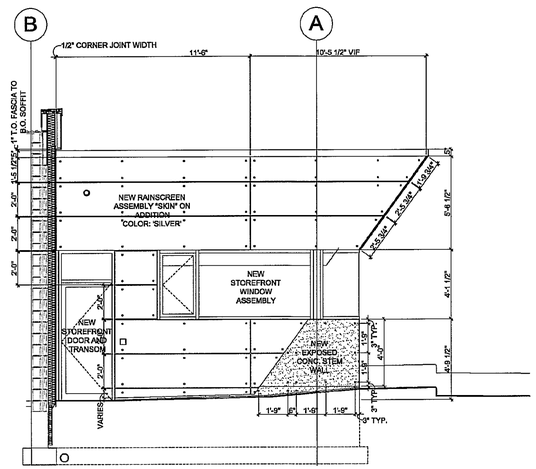
REVISIONS

ISSUE:

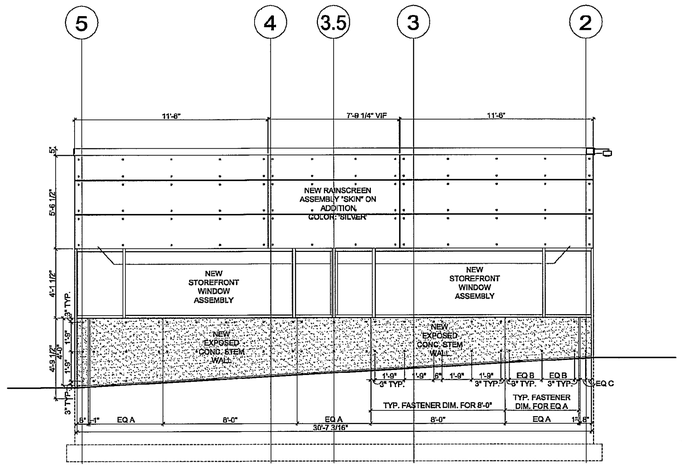
S.E.A.
ILLUSTRATIVE

WEST ELEVATION DETAILS
SHEET TITLE

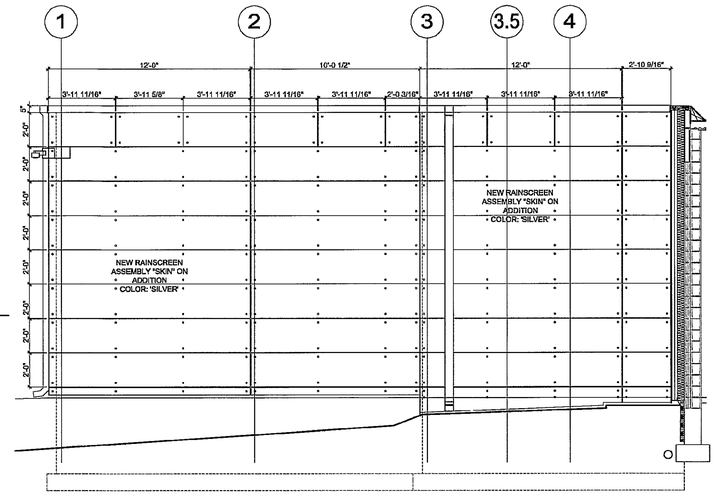
B & A PROJECT NUMBER - 632	
DATE: 15 OCT 2009	SHEET No.
SCALE: 1/4" = 1'-0"	A-404
DRAWN BY: DLK	
CHECKED BY: MM	



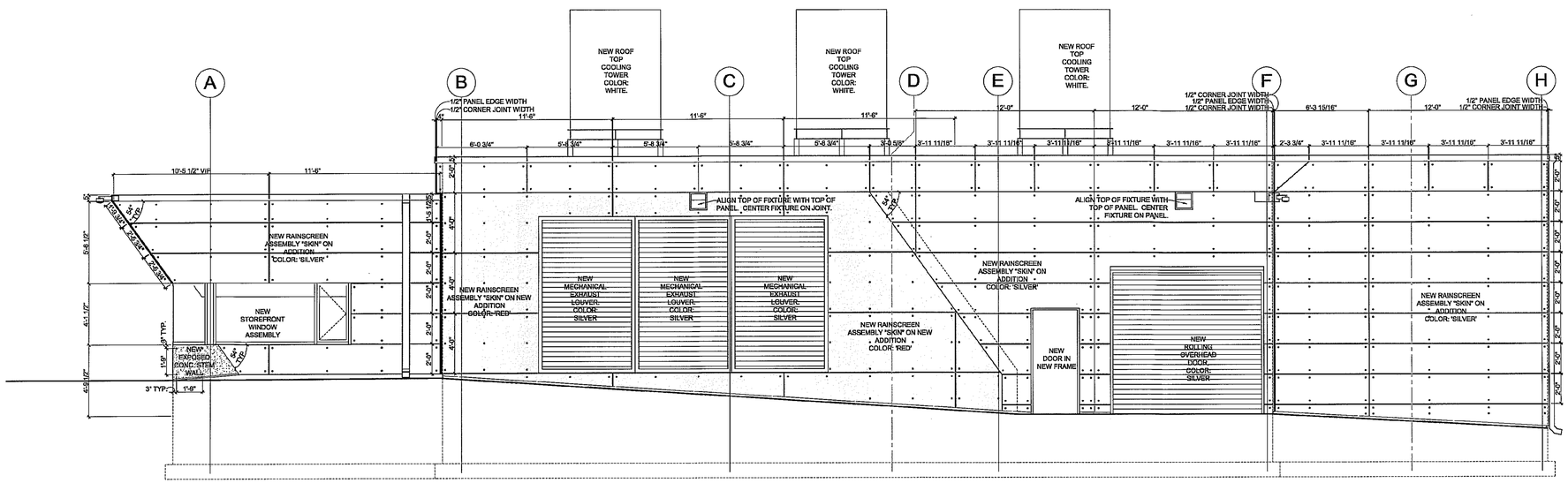
1 A-405 **ADDITION- EAST ELEVATION**
SCALE: 1/4" = 1'-0"



2 A-405 **ADDITION- NORTH ELEVATION**
SCALE: 1/4" = 1'-0"



3 A-405 **ADDITION- SOUTH ELEVATION**
SCALE: 1/4" = 1'-0"



4 A-405 **ADDITION- WEST ELEVATION**
SCALE: 1/4" = 1'-0"

Application No. SEA85-L-022-03 Staff DeMarche
APPROVED (SE) SP PLAN
SEE DEV CONDS DATED 1/21/10
Date of (BOS) (BZA) approval 1/26/10
Sheet 14 14

ILLUSTRATIVE ELEVATIONS

bloomfield ASSOCIATES ARCHITECTS
1550 Latmer Street
Philadelphia, PA 19102
T: 215.732.7311
F: 215.732.3212
www.bloomfieldassociates.com

ARCHITECT

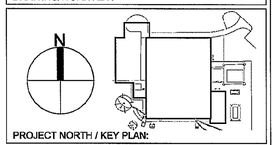
ARCH SEAL

PBS **SATELLITE OPERATIONS CENTER**
6455 Stephenson Way
Alexandria, VA 22312
PH: (703) 739-5474
FX: (571) 436-4292

CLIENT

S.O.C. 1
ADDITION AND RENOVATIONS
PROJECT

EXISTING WORK
DEMOLITION WORK
NEW WORK
DRAWING/WORK KEY:



PROJECT NORTH / KEY PLAN:

REVISIONS	

ISSUE:

S.E.A.
ILLUSTRATIVE

ADDITION ELEVATION DETAILS
SHEET TITLE

B & A PROJECT NUMBER - 632	
DATE: 15 OCT 2009	SHEET No.
SCALE: 1/4" = 1'-0"	A-405
DRAWN BY: DLK	
CHECKED BY: MM	